

PSYCHOLOGICAL ABSTRACTS

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GENERAL

514. Augier, E. *Une psychologie objective est-elle possible?* (Is an objective psychology possible?) Paris: Alcan, 1928. Pp. 290. 30 fr.—The author thinks that the ideas at the basis of classical psychology are not rudimentary facts, and he says we must go back to these rudimentary facts. However, in psychology the elementary act is nearly always so brief that generally it can only be gotten at through physiology as an intermediary. In the first part the author tries to show how the actual results of different psychologies have been organized (the rôle of science, truth, reality, explanation, objective and subjective formulas, and the return to the objective). In the second part he points out how objective psychology is able to handle the study of important psychological facts (movements and emotions, sensations, recollections and images, abstraction, simple and skilled actions, formation of associations, memory and habit, pleasure, grief, transference, formation and use of concepts, reflective acts, and introspection). There is no bibliography.—*Math. H. Piéron* (Sorbonne).

515. Baegge, M. H. *Biologie und Psychologie.* (Biology and psychology.) *Psychol. u. Med.*, 1927, 2, 184-191.—The author contends that psychology will be raised to the level of an exact science only when psychologists abandon the introspective point of view, of which the logical consequence is solipsism, and adopt the biological point of view. The material for a deeper understanding of psychological facts is to be found in Zoology, Physiology, Biochemistry, Histology, Psychiatry, and Medicine. The task of working this material over into an exact theoretical psychology is urgently necessary.—*M. F. Martin* (West Springfield, Mass.).

516. Biró, P. *Die Sittlichkeitsmetaphysik Otto Weiningers.* Eine geistesgeschichtliche Studie. (Otto Weininger's metaphysics of morality. A genetic study.) Diss. Wien: Jasper, 1927. Pp. 88.—The author sees three possible attitudes—psychological, ethical, and genetic—towards Weininger's teaching. Assuming the genetic attitude, he tries to assign to Weininger's teaching its proper place in his intellectual development. He presents a sketch of his personality and of the various phases of his development until his suicide. This is followed by a discussion of the reasons why the sexual problem had occupied the center of Weininger's thinking. Weininger's significance lies in his heroism, which does not shrink before any tragical situation. The author, however, rejects Weininger's pessimism, because "a standard which drives man into despair is inadequate or simply wrong."—*F. Redl* (Vienna).

517. Cady, L. C. *Wang Yang Ming's doctrine of intuitive knowledge.* *Monist*, 1928, 38, 263-291.—The philosophical system of Wang Yang Ming is a form of monistic idealism in which mind is the key to the Universe, the ultimate term in the hierarchy of concepts—Heaven, Nature, Mind and Reason—which the Chinese sage employs in his interpretation of the Cosmos. Mind is used both in the sense of an absolute, and as the manifestation of the latter as intelligence in the individual. The principal character of mind is the intuitive faculty or intuitive knowledge. Mind in action is intuitive knowledge which in the various transformations takes on the character of natural law, attention, conscience, philosophical reflection or experimental investigation of all things from inanimate objects to social and political relationships. All learning is a manifestation of intuitive knowledge. Thus the sage understands the whole world because his mind is the sum of the principles of nature. This view resembles the subjective idealism of Berkeley. Wang clearly recognizes the relation of knowledge to action as beginning and end of a unitary process. Intuitive knowledge, the *a priori*, must be developed by experience, so that intelligence is an acquisition. Moral categories and judgments, as well as social consciousness, are innate. In short, intuitive knowledge covers the whole knowledge function of the mind—perception, memory, reflection, rational and moral judgments, in so far as these constitute man's original nature. There are certain parallels between his thought and that of Descartes, Spinoza and Leibnitz, although his doctrine of intuition does not correspond directly with any of the recognized meanings of intuition in the West.—*C. M. Diserens* (Cincinnati).

518. Christmann, F. *Biologische Kausalität. Eine Untersuchung zur Ueberwindung des Gegensatzes Mechanismus-Vitalismus.* (Biological causality. An inquiry into the defeat of the mechanism-vitalism antithesis.) *Heidelberg. Abh. z. Phil. u. i. Geschichte*, No. 16, 1928. Mohr: Tübingen. Pp. 111. M. 5.—The defeat, not of mechanism or vitalism but of the mechanism-vitalism antagonism, is the next aim which the author has set for himself. The concepts of mechanics, physics and chemistry also apply in living nature, but they do not distinguish the living body as living. Vitalism sticks fast to mechanism; it sets up, where mechanistic causality denies, a metaphysical agent (vital force, entelechy) in order to bring life into a form of mechanistic causality. The antagonism between mechanism and vitalism is the result of putting the problem wrongly. The alternative should not be called mechanistic causality-entelechy (vital force,

mental, etc.), form-matter, but mechanistic causality-biological causality. It is also a question of bringing into consciousness the peculiar nature of the formation of biological concepts, the logical contents of the concepts of living body and biological causality. These purely logical studies teach the actuality of a biological "implication," which goes with the mechanistic "explanation." They also prepare the way (the next paper of the author will show this) for an ontic-metaphysical determination of the concepts of life.—*F. Christmann*.

519. Draghicesco, D. *La réalité de l'esprit. Essai de sociologie subjective avec une préface de L. Lévy-Bruhl.* (The reality of the spirit. An essay on subjective sociology with a preface by L. Lévy-Bruhl.) Paris: Alcan, 1928. Pp. 276. 25 fr.—Every conscious subjective act, says the author, is the direct manifestation of a cerebral phenomenon, but the cause of this phenomenon resides without and springs from the social environment. It seems that the determining cause of these conscious facts resides in the conditions of life and the relations which man bears to his social group. Sociology, considered as subjective sociology, will be an effort towards the completion of introspective psychology. The conscious individual becomes the seat of historico-social phenomena. In the first part of the book, the author considers the matter of the explanation of consciousness, memory, and attention from the social point of view (the relations of the psychological to the social, religion as the source of social cohesion and of consciousness, the extension of society, attention and memory, and the physiological interpretation). In the second part he studies the logical, superior functions of consciousness (abstraction in primitive people, the inferior, average, and superior forms of abstraction and its physiological interpretation, the sociology of concepts, and the unconscious). In the third part he compares the sociological point of view and monistic idealism (monistic and dualistic idealism, the spiritualism of Eucken, and the mysticism of E. Boutroux). He concludes by saying that the spirit is an effective reality, as concrete as consciousness. The spirit is immaterial, infinite, eternal, and only mysticism and religion, parts of sociology, can explain what becomes of the spirit when its material organ is dead. The author hopes that the sciences of the soul and of human society will take their place as positive and rational sciences. There is no bibliography.—*Math. H. Piéron* (Sorbonne).

520. Fernberger, S. W. *Statistical analyses of the members and associates of the American Psychological Association, Inc., in 1928. A cross section of American professional psychology.* *Psychol. Rev.*, 1928, 35, 447-465.—Statistical facts relating to the membership of the American Psychological Association were taken from the 1928 Year Book; they relate to the following topics: geographical distribution, academic antecedents, problem of "inbreeding," academic rank (in cases of members not in colleges, occupation), subjects of instruction, research interests. Several tables are given and many interesting facts noted regarding the relations of

psychology to those who practice it and the world at large.—*H. Helson* (Bryn Mawr).

521. Guy-Grand, G. *Les deux aspects d'un journal.* (The two aspects of a journal.) *Psychol. et vie; Rev. de psychol. appl.*, 1928, 2, 166-168.—*Math. H. Piéron* (Sorbonne).

522. Hansing, O. *The doctrine of recollection in Plato's dialogues.* *Monist*, 1928, 38, 231-262.—The Platonic doctrine of recollection or reminiscence is intimately connected with subsequent psychological conceptions of learning and with the development of the theory of knowledge. In this paper the various senses in which Plato used the term are assembled and compared, and the relation of the conception to the older doctrine of metempsychosis is defined. It is not to be interpreted as the doctrine that men remember what has been learned in former incarnations, but an attempt to express the rational nature of the soul. It is of two types, empirical and transcendental. It is primarily an hypothesis explaining the learning process, based on the assumption that mind and reality are akin. Parallelisms in the doctrine of Royce are indicated, e.g., his theory of learning process as a search for meaning.—*C. M. Diserens* (Cincinnati).

523. Hsiao, H. H. *A suggestive review of Gestalt psychology.* *Psychol. Rev.*, 1928, 35, 280-297.—Author attempts simple definitions of concepts used in the configurational literature: *Gestalt*, phenomenal pattern, figure-ground, wholeness, transposability, *Prägnanz*, closure, *Innigkeit*, perceptual processes, attention, recognition, memory, motor acts, habit, intelligence, etc. Under these captions the main tenets of the school are repeated. Critics of *Gestalt* are answered and the author puts in his criticism.—*H. Helson* (Bryn Mawr).

524. Hugon, P. D. *Our minds and our motives.* New York: Putnam, 1928. \$3.00.—*W. S. Hunter* (Clark).

525. Ichheiser, G. *Nachruf für G. Roffenstein.* (In memory of G. Roffenstein.) *Arch. f. d. ges. Psychol.*, 1928, 61, 517-519.—Gaston Roffenstein (died 1927), Austrian psychologist, was the author of numerous papers on psychiatry and social psychology, and of one book, *Das Problem des psychologischen Verstehens* (1926). A bibliography is given.—*D. McL. Purdy* (California).

526. Jastrow, J. *Keeping mentally fit.* New York: Greenberg, 1928. Pp. xi + 297. \$3.50.—An attempt to enlist and guide the interest of the casual reader to the principles and mechanisms of his own mind. Since the material was first published in the form of newspaper articles, the treatment is of necessity journalistic; the appeal is to an unselected audience of slight scientific knowledge, which browses more readily than it studies. Principles of mental hygiene are stressed. The subjects touched upon are particularly those whose application is direct and of hygienic interest. The following are a few topics which indicate the form and range of the book: The Art of Being Happy; Putting the Brakes on Anger; A Mental Code for Every Child; How Can Stealing Be Cured? When Our Actions Give

Us Away! What is a Complex? How Friends and Strangers Judge You; Ups and Downs of the Day's Work.—*M. P. Montgomery* (Faribault, Minn.).

527. Johnston, G. A. *Sensations, sense data, physical objects and reality.* *Monist*, 1928, 38, 350-372.—Examination of a so-called simple act of awareness discloses a complexity due to the several senses usually involved. No one of the senses or ways of awareness can claim priority, since each is defective and all are necessary to complete awareness. Error is progressively diminished by the corroboration of one sense by others. Awareness is thus invalidated by the number of ways of awareness coordinated in it. Thus awareness is not simple, nor is it immediate, since (1) it involves coordination, and (2) it is mediated (a) by sense organs and (b) by medium intervening between sense organ and objects. A distinction is usually made between sensations, sense data and physical objects, with various efforts to reduce to a common term, and there is a difference of opinion as to the essential nature of sense data where these are accepted. The author rejects sense data as real existences, identifying them as mental constructs, incidental to peculiarities of certain perceptive situations. They are postulated with consistency only in the case of vision. Qualities and relations are at least partly independent of mind, and the distinction between primary and secondary qualities consists in the fact that the latter are perceived by only one sense, the former by several. Objects and relations are functions of one another, a special quality of relatedness being an unnecessary assumption. Among relations are psychical relations of a variety of types besides perception, a fact which invalidates Berkeley's views; mind, equally with matter, is constituted by the relations in which it stands.—*C. M. Diserens* (Cincinnati).

528. Kuo, Z. Y. *The fundamental error of the concept of purpose and the trial and error fallacy.* *Psychol. Rev.*, 1928, 35, 414-433.—If we accept the stimulus-response formula as our scientific motto we cannot allow any third factor—purpose, drive or what not—as a causal factor of behavior. To the behaviorists, every action of the organism is a passive or forced movement, passive in the sense that the organism does not initiate movements by itself except as it is compelled by environmental forces. The difference between the action of a man and the movement of a stone is merely the difference in complexity, primarily due to differences in structure. A response is always a completely executed action or it is not a response at all, hence there can be no distinction between the so-called consummatory reactions and preparatory or subordinate reactions. The concept of trial and error, the difference between learned and unlearned activities, instinct and insight, the division between successful and unsuccessful movements in learning experiments should all be abandoned. All responses are due to the prepotent stimulus acting at the moment. No new act or series of acts is acquired in habit formation; no acts are selected, fixed and retained; no new neural pathways are formed; reduction of synaptic resistance has no

foundation. The fundamental problem in animal behavior is how to control the stimulating conditions so as to force the animal most readily and rapidly and with least chance in the way desired by the experimenter.—*H. Helson* (Bryn Mawr).

529. Leary, D. B. *Modern psychology.* Philadelphia: Lippincott, 1928. Pp. xii + 441. \$4.00.—This volume presents a theoretical framework, of the sort commonly termed philosophical, for the behavioristic study of personality. The author urges the psychologist to reject the traditional ("introspective, speculative, *a priori*") methods of philosophy. Determinism is insisted upon. Key concepts employed include stimulus-response, conditioning, integration, drive and mechanism, adjustment. A modified double-aspect theory of mind-body is upheld and supplemented by Watsonian notions of the relation between consciousness and language responses. Central origin for images is inadmissible and they are assimilated to "perceptual errors" and the "as-if" attitudes. Definite instincts are ready-made categories of pre-existent behavior or chains of reflexes are rejected. A new theory of learning makes it "a complicated motor act involving learning the steps in reverse order." (Substantiating experimental evidence is to appear in later publications.) The concept of personality is discussed from the standpoints of abnormal and social psychology and ethics. Psychoanalysis receives a behavioristic restatement, replacing "verbal completeness and consistency," yet recognizing Freudian geneticism and dynamism; e.g., "a given drive can be adequately consummated only if and when the mechanisms and conditions, whether motor or visceral or verbal, are able to properly manipulate the organism or the environment, or both." A new classification of behavior aberrations is proposed, distinguishing four aspects of maladjustment for each of three groups varying in degree of surrender to anti-social and dissociated patterns. A brief chapter is devoted to experimental and quantitative methods of personality study. The final division of the book treats selected types of personality adjustment: delusion and belief (emphasizing motor and emotional constituents); magic, mysticism and religion. ("Religion will, in all probability, continue to change as it has been changing; come to look more and more to facts and less and less to gratification in terms of fantasy and if, running parallel to this, science and philosophy can build up a point of view that is adequate for the adjustment of the human being, religion will gradually cease to be a means to an end that can better be accomplished in other and more factual ways"); art and beauty ("Art and beauty, as experiences, as types of behavior, share with religious experience and behavior, the wishful, 'as-if' attitude." Art is "a language of the emotions, of the wishes and desires common to a group"); and philosophy ("Philosophy, in the larger sense of the word, in the better and more factual sense, can only come into existence when and if a less biased, a less narrow, a more factual survey of human nature and the world it lives in is achieved." "That the epistemologist seeks to fly higher is true; that he seeks to find

greater generalizations than history or science offers is also true; but that he has found them, or that his method of research is valid, is here held not true." "The so-called problems of philosophy are real problems only in the sense that they are verbal expressions of factual problems and conflicts in the concrete field of experience of the actual individual." "A behaviorism of personality will be, at one and the same time, a science and a philosophy; . . . based on experiment and research . . . demonstrable and verifiable . . . synthetic . . . all-inclusive . . ."—*R. M. Elliott* (Minnesota).

530. Major, D. R. *Man is organic to nature. Monist*, 1928, 38, 373-385.—The author's aim is to develop the implications of the view that man is organic to nature in reference to theories of perception. That man is an emergent aspect of nature is clear from his ontogenetic and phylogenetic history, as well as the functions he shares with animals. The author speculates as to the nature of the world before the emergence of mind, finding an answer in the actual state of things. He resolves the subject-object problem by identifying subject and object as two aspects of a single experience, i.e., as abstractions *per se*. Of the classical theories of the relation of mind and its objects he rejects subjectivism, realism and phenomenalism, accepting the idealistic view that mind is in some sense continuous with its objects, or in short man and nature are in organic community.—*C. M. Diserens* (Cincinnati).

531. Nordenskiöld, E. *The history of biology.* (Trans. by L. B. Eyre.) New York: Knopf, 1928. Pp. x + 629.—The author presents the development of biology from ancient times until the present and stresses the relationship between this development and the general cultural development of man. A few references are given to psychology, particularly in its comparative phase.—*W. S. Hunter* (Clark).

532. Ricaldoni, A. *Plataforma móvil para la observación y el registro gráfico del fenómeno de Romberg y otras perturbaciones de la estática.* (Mobile platform for the observation and graphing of the Romberg phenomenon and other disturbances of the static sense.) *Anal. d. l. Inst. d. Neur.*, 1927, 1, 496-507.—The apparatus devised was used in the testing of the sense of equilibrium in normal and abnormal individuals. When the eyes of the subject are closed the oscillations on the graph reveal the cases in which this sense is deficient. It is hoped that with further refinement these graphs will serve as an aid in diagnosing cases of paresis, etc., where a disturbance of the static sense is a symptom.—*J. W. Nagge* (Clark).

533. Ritter, W. E., & Bailey, E. W. *The organismal conception. Its place in science and its bearing on philosophy.* *Univ. Calif. Publ. Zool.*, 1928, 31, 307-358. \$0.65.—This essay is an epitome of the argument contained in Ritter's books, *The Unity of the Organism* (1919) and *The Natural History of Our Conduct* (1927), and in a third book now in preparation. It is "an effort to . . . justify the conclusion that in all parts of nature and nature itself as one gigantic whole, wholes are so related to their parts that not only does the existence of the whole

depend on the orderly cooperation and interdependence of its parts, but the whole exercises a measure of determinative control over its parts." The authors discuss the bearing of this conception on the following branches of research: cytology, protoplasmic physiology, genetical biology, biology of respiration, neural biology, endocrinology, psychology and the sciences of inanimate nature. The notion of the organism as a mere aggregate of cells is shown to be inadequate; the elaborate anatomy and physiology of protozoa demonstrates that organization is more fundamental than cellular structure. Child's theory of the physiological gradient is only a special form of the organismal conception. In genetics, the elementalist hypothesis requires an organismal amendment. Inherited characters are not to be correlated with single hereditary units, but must be supposed to be due to the interaction of many such units (Morgan). The intricate problem of respiration may be better conceived from the organismal viewpoint than from that of Haldane's vitalism. Sherrington, Parker and Herriek have helped to establish the organismal conception in neurology. Recent work in endocrinology has made it clear that the functions of the internally secreting organs cannot be adequately analyzed in isolation from the whole organism. The endocrine system is a chemical coordinating system. In psychology, the *Gestalt* theory is "an aborted organismal theory, the abortion appearing to be due to lack of an adequate biological foundation, especially in the realm of metabolism. . . . All that would be necessary, so far as formulation is concerned, to change the abortive *Gestalt* theory into a full-rounded organismal theory would be to substitute for the term '*Gestalt*' the term '*organism*,' and recognize that the '*mental background*' of the theory is the organism's general responsive state, while the '*qualities*' are special responses, or activities, within this general state." In the remaining pages, the authors consider the organismal conception as applied to the physical sciences and to philosophy, concluding with an examination of the nature of reality and the nature and function of concepts. 40 references.—*D. McL. Purdy* (California).

534. Roberts, W. H. *Some queries as to Kuo's doctrine of passivity.* *Psychol. Rev.*, 1928, 35, 531-532.—(See III: 528). Do not two factors, at least, enter into every chemical, physical and mechanical process, and shall we consider electrons and atoms genuine factors but deny that organisms are factors in what happens to them?—*H. Helson* (Bryn Mawr).

535. Rosenow, C. *A reply to Dr. Kuo.* *Psychol. Rev.*, 1928, 35, 532.—(See III: 528.) That chemistry and physics have no concepts with which to describe purposive behavior which is an observable fact merely shows that concepts of purpose are foreign to these sciences; but it is difficult to see whence Kuo and his confrères derive authority for banishing from science observable facts.—*H. Helson* (Bryn Mawr).

536. Seelig, E. *Die psycho-diagnostische Ausdrucksregistrierung und ihre Verwendung in der Kriminologie.* (The psycho-diagnostic registration

of expression and its application to criminology.) *Psychol. u. Med.*, 1927, 2, 210-214.—Pneumograph and plethysmograph and other records of physiological changes during emotional experiences have diagnostic value to the criminologist both in the detection of guilt and in the study of temperament and character. Reliability of the method is increased by making several curves simultaneously, for if one curve is made at a time the patient's attention to that part of the body may lead to an error. If curves are to be compared, the same apparatus must be used on all subjects. Technical training of the experimenter is of utmost importance. Dilettante experiments bring discredit upon the whole method.—*M. F. Martin* (West Springfield, Mass.).

537. Störing, G. *Zur Frage der geisteswissenschaftlichen und verstehenden Psychologie.* (The question of cultural science and understanding psychology.) *Arch. f. d. ges. Psychol.*, 1928, 61, 273-354.—A continuation of the article abstracted in II: 559. In the present section Störing combats the "insight-psychology" of Erismann as expounded in his book *Die Eigenart des Geistigen*. Erismann holds that modern psychology errs in adhering solely to the inductive method; the domains of ethics, logic, esthetics and *Weltanschauung* are to be grasped only by the method of insight. Erismann, however, assumes a too narrow conception of induction when he regards it as the mere establishment of successions; actually induction involves a certain component of insight. Erismann's charge that modern psychology neglects the transcendence of thought is unfounded; this science sharply differentiates its objects from those of the natural sciences. Physical objects are not, as Erismann supposes, direct objects of thought. Thought deals rather with perceptual complexes (which the naïve observer may identify with physical objects). Erismann's assertion that modern psychology describes general ideas as fusions of sensations and images, and thus fails to account for the transcendence of meaning, is equally weak. Erismann makes an unfortunate confusion between logic and psychology, erroneously supposing that it is the task of psychology to set up criteria for the validity of judgments. His theory is that thought can not only "mean" a transcendent object, but also "know it as it really is." A "psychological" criterion for the correctness of thought is thus implied. But such acts of transcendental cognition belong to a Platonic metaphysics rather than to psychology. When thought moves among extra-mental objects, these objects are always grasped by way of intra-mental contents. In a similar fashion Erismann confounds ethics and psychology. In the domain of voluntary action, he believes "insight" to be the only valid method; the connection between cause and effect being here immediately felt, not inductively inferred. But it is to be noted that this immediate feeling, if it is present, is itself a proper object for natural-science psychology. The "volitional feeling," however, is the result of a (partial) consummation of the voluntary act, and owes its "active" character to sensations of muscular strain. Störing's own experiments have shown that in most

cases the volitional feeling, even when distinctly present, is not experienced as in causal relation to the end-result. Natural-science psychology, here as elsewhere, furnishes more true insight than does "insight-psychology."—*D. McL. Purdy* (California).

538. Theodorakopoulos, J. *Platons Dialektik des Seins.* (Plato's dialectic of being.) *Heidelberg. Abh. z. Phil. u. ihrer Geschichte*, No. 13. Tübingen: Mohr, 1927. Pp. 96.—Any understanding of a philosophical system requires first of all a fundamental concept of a system of philosophy as such. Since Plato has taught us this truth, it is appropriate that an exposition of his teaching should begin with systematization. Accordingly, the author, using the dialogue *Philebos* as his basis, traces the problems backwards according to Plato's own method of philosophizing and builds up a system of philosophy which starts with "the fundamental distinction between the determined and the undetermined, the *peras* and *apeiron*." He clearly separates his interpretation of Plato from that of others (Natorp, Stenzel, Höfding) and then formulates Plato's doctrine with great conciseness.—*F. Redl* (Vienna).

539. Thouless, R. H. *The control of the mind.* London: Hodder & Stoughton, 1927.—*W. S. Hunter* (Clark).

540. Tolman, E. C. *Purposive behavior.* *Psychol. Rev.*, 1928, 35, 524-530.—Author answers Kuo's criticisms of purpose (see III: 528) as an objective phenomenon by: (1) redefining purpose and showing that as an inferred concept it is no different from many of the concepts used in the natural sciences; (2) showing that if the doctrine of purpose does not have an exact physiology to back it up, neither does the simple hypothesis of one-to-one correlation between stimulus and response; and (3) referring to experiments in which preparatory responses (restless movements) were influenced or contingent upon the end results, changing their character as the end-situation changed.—*H. Helson* (Bryn Mawr).

541. Urban, F. M. *Edward Bradford Titchener.* *Arch. f. d. ges. Psychol.*, 1928, 61, 515-516.—A brief obituary note.—*D. McL. Purdy* (California).

542. Watson, J. B., & McDougall, W. *The battle of behaviorism.* London: Kegan Paul, 1928.—*W. S. Hunter* (Clark).

543. Wenzel, A. *Contemporary German psychology.* *Monist*, 1928, 38, 120-157.—A comprehensive exposition of contemporary German psychology involves the consideration of four main currents of research and thought, viz., (1) experimental psychology and its applications, (2) *Gestalt* psychology, (3) intuitive psychology and the study of personality, (4) psychology of the unconscious, psychoanalysis, individual psychology. Studies in parapsychology or the occult forces of human nature perhaps constitute an additional field. Recent work in experimental psychology includes new detailed studies of various sensory fields. It includes eidetic phenomena and the isolation of eidetic types and refined applications of the associational psy-

chology to higher mental processes, resulting in the formulation of the constellation theory of Müller and the concept of anticipatory schemes as put forth by Selz, who has also thrown much light on the processes involved in the solution of problems. The application of experimental psychology to special fields has advanced rapidly since 1914. *Gestalt* psychology is a protest against psychological atomism and excessive analysis, but is not entirely novel, rests on an untenable physiological hypothesis, is too diffuse, is artificially allied with American behaviorism, and fails to explain meaningful psychic processes. Intuitive psychology is a protest against both of the former schools. It stresses understanding rather than explaining mind. It offers a rich literature, of which works by Jaspers, Spranger and Stern afford the best examples. But it offers no teachable system, and depends on an inadequate and essentially non-psychological theory of types. A valuable effort to establish types on a physical basis is due to Kretschmer. The psychology of the unconscious has been developed by the psychoanalysts and individual psychologists, who, however, offer no complete psychology, but rather a therapeutic instrument, as recognized in the broader and more philosophical treatment of Jung. The author classifies the fields of genetic psychology at present recognized and enumerates the problems of metaphysical psychology. A final summary and table present the relationship of the various movements to one another, showing that in the midst of apparent chaos of opinion there are tendencies toward a synthesis.—C. M. Diserens (Cincinnati).

544. Wirth, W. Nachruf für Götz Martius. (In memory of Götz Martius.) *Arch. f. d. ges. Psychol.*, 1928, 61, 500-514.—Götz Martius (1853-1927) was emeritus professor of philosophy at Kiel. His early training was in science and medicine, after which he became a pupil of Wundt, who seems to have influenced his entire career. Although primarily interested in philosophy, Martius instituted a psychological laboratory at Bonn in 1888, publishing researches on the specific brightnesses of colors, apparent visual size, the time-relations of visual sensations, the influence of mental phenomena on pulse and respiration, and the reaction-time (he brought to light the "central" type of reaction). In 1896 he inaugurated the *Beiträge zur Psychologie und Philosophie*, of which only four numbers appeared, the last in 1905. Martius defended the conception of an "analytical psychology," i.e., one which takes complex phenomena as its point of departure, and thus opposed himself to the classical associationism which begins its constructions with elements. (Bibliography of Martius' psychological and philosophical writings.)—D. McL. Purdy (California).

545. Wyatt, H. G. The Gestalt enigma. *Psychol. Rev.*, 1928, 35, 298-310.—Author asks certain questions of configurationism and shows wherein they are not answered satisfactorily by this school unless ends, purpose and selection are brought in, thereby necessitating the inclusion of end in configurational

descriptions and explanations.—H. Helson (Bryn Mawr).

546. Zalkind (Salkind), A. B., Kornilov, K. N., & Shpilrein (Spielrein), I. N. [Eds.] *Zhurnal Psikhologii, Pedologii i Psikhotehniki*. Tom 1, Vypusk 1, 1928. Moskva-Leningrad: Glavnoe Upravlenie Nauchnūmi Uchrezhdeniyami (Glavnauka); Gosudarstvennoe Izdatelstvo (Gosizdat).—This new periodical is to appear in three series: A, *Psikhologiya*, edited by K. N. Kornilov, two issues per year, subscription 4 rubles (price for I-1, 2 rubles 50 kopeks); B, *Pedologiya*, edited by A. B. Zalkind (German transliteration Salkind), two issues per year, subscription 4 rubles; V, *Psikhofiziologiya Truda i Psikhotehnika*, edited by I. N. Shpilrein (German transliteration Spielrein) four issues per year, subscription 6 rubles; subscription for the three series, 11 rubles. The first number contains seven articles in the theoretical section, four in the experimental section, two reports of congresses, and a book review section—196 pages in all. Seven of the articles are accompanied by short abstracts in German.—R. R. Willoughby (Clark).

[See also abstracts 573, 618, 690, 712, 734, 779, 837, 848, 906, 907, 943.]

SENSATION AND PERCEPTION

547. Boring, E. G. Did Fechner measure sensation? *Psychol. Rev.*, 1928, 35, 443-445.—A defence of Fechner's derivation of the *Maasformel* and the meaning of certain entities used therein.—H. Helson (Bryn Mawr).

548. Cobb, P. W., & Moss, F. K. Four fundamental factors in vision. *Trans. Illum. Eng. Soc.*, 1928, 23, 496-506.—The ability to discriminate a visual object depends upon the following important factors: (1) the visual angle subtended at the eye by the details of the object; (2) the brightness level to which the object is illuminated; (3) the relative brightnesses of object and background; (4) the time of exposure of the visual object. The effects of these four interrelated variables were studied quantitatively in previous investigations. Curves and tabular data are given in this paper showing the magnitudes of these variables required to render the object just visible. The application of the results to practical lighting problems is discussed.—L. L. Sloan (Harvard Medical School).

549. Cowan, A. Test letters which comply with the physiological requirements of a visual test object. *Amer. J. Ophth.*, 1928, 11, 625-628.—In spite of many attempts to find a so-called universal test object, letters and numerals still offer the best means of testing visual acuity. The breadth of the lines and spaces in these letters should be such that at a standard distance they subtend an angle of one minute. This is assumed to be the minimal angle of discrimination. Letters such as A, F, P, and T, easily recognized by outline, should not be used. Only such letters as B, D, E, H, and R, modified to conform to the requirements, are suitable.—C. W. Darrow (Institute for Juvenile Research).

550. Cowan, A. Test cards for the determination of the visual acuity. A review. *Arch. Ophth.*, 1928, 11, 283-297.—Bibliography of 61 titles. Writers seem to agree that the letters of the alphabet are not the ideal objects for testing visual acuity, yet there is no so-called universal test object which can adequately take their place. The letters used should conform to suggested standards.—C. W. Darrow (Institute for Juvenile Research).

551. Dufour, M. Une illusion d'optique. (An optical illusion.) *C. r. Soc. biol.*, 1928, 99, 410.—The author, having tried by means of an opera glass (with an eight-fold magnifying power) to fixate a star, saw the one which came into view as unsteady and as moving slightly in all directions, though not departing very much from a central position. However, the stars situated on the border of the visual field, those which he was not fixating in direct vision, appeared immobile. This phenomenon was due to the involuntary movements imparted to the glass by his hand and to the differences of visual acuity in the macular and the peripheral regions.—Math. H. Piéron (Sorbonne).

552. Estable, C. Apuntes sobre la retina. (Notes on the retina.) *Anal. d. l. Inst. d. Neur.*, 1927, 1, 328-345.—This is a discussion and comparative study of retinal construction and connections. Some of the leading problems in this realm are studied. Many authorities are cited.—J. W. Nagge (Clark).

553. Ferree, C. E., & Rand, G. Intensity of light and speed of vision studied with special reference to industrial situations. Part II. *Trans. Illum. Eng. Soc.*, 1928, 23, 507-546.—In a previous paper results were given on the relation of intensity of light up to 100 ft.-c. to speed of vision for black test-objects (visual angles 1-5') viewed on backgrounds of 78, 29, 21, and 16% coefficient of reflection. In the present paper the study is extended to include other conditions of work sampled from industrial situations. In the first series of experiments the effect of intensity of light was investigated for light objects on dark backgrounds and a comparison made with the effect for dark objects on light backgrounds. Two cases were studied: white test-objects on a black background for comparison with the former study of black test-objects on a white ground; and white test-objects on a gray background of approximately the brightness of unpolished steel (21% coefficient of reflection) for comparison with the former study of black test-objects on this background. In the second series of experiments a color difference was introduced of a kind frequently found in industrial situations. A brass broken circle imbedded in a steel disc and a similar steel broken circle imbedded in a brass disc were used as test-objects. In the third experiment the effect of intensity of light on the speed of reading a steel vernier rule to 1/1000 inch was determined. This experiment shows to what extent speed of work of a factory type, involving an important use of the eye, may be increased by increasing the intensity of light when the work is done under controlled conditions. Other points included in the paper are: (1) a study of the cause of the difference in results obtained for

dark objects on light and light objects on dark backgrounds; (2) the measurement of the size of the pupil from 1.25 to 100 ft.-c. with the eye viewing the black, gray, and white backgrounds; (3) individual differences in speed of discriminating white and black objects on gray backgrounds of the same coefficient of reflection (4 observers); and (4) individual differences in size of pupil from 1.25 to 100 ft.-c. with the observers viewing the white background (6 observers).—L. L. Sloan (Harvard Medical School).

554. Gaudissart, —. La périmétrie quantitative. (Quantitative perimetry.) *J. de neur. et de psychiat.*, 1927, 10, 771-778.—A modification of the combined screen of Clifford B. Walker (Boston) is described and illustrated with figures. The author divides the visual field into three concentric zones and explains the technic of an exact quantitative perimetry for each of these. This method allows the detection and localization of lesions (temporal lobe) which cannot be determined by other means.—H. C. Syz (New York City).

555. Gehrcke, E. Handbuch der physikalischen Optik. Leipzig: Barth, 1928.—W. S. Hunter (Clark).

556. Isola, A. Vertigos y cefalalgias oculares. (Ocular vertigo and headache.) *Anal. d. l. Inst. d. Neur.*, 1927, 1, 70-84.—It is well known that ocular fatigue, headache and feeling of exhaustion often accompany nervous disorders. These were believed to be symptoms of nervous disease. The author points out that ocular defects with their resulting vertigo and headache are often causes rather than mere effects of nervous disorders. A case is cited as follows, "A girl . . . suffered from convulsions of epileptic character. Examined at leading clinics, she was diagnosed as epileptic: she was suffering from an astigmatic condition which when corrected completely suppressed the convulsive attacks." Many cases diagnosed as grave nervous disorders have their bases merely in ocular deficiency.—J. W. Nagge (Clark).

557. Mansvelt, E. Over het schatten der grotte van figuren van verschillende vorm. (On the judgment of the size of figures of different form.) *Meded. u. h. Psychol. Lab. d. Rijksuniv. t. Utrecht*, 1928, 4, II, 134-137.—Circles, squares, and equilateral triangles cut from cardboard were presented for 5 sec., and thereafter subjects had to select a figure judged equal in size to the one exposed from a number of figures of the same form drawn on a single sheet of paper. The radii of circles ranged from 13 to 37 mm. Squares and triangles were first inscribed in circles of these radii and then cut out. Four subjects made in all 6,750 judgments. Circles were regularly overestimated, except in the case of those with $r=13$ and 15 mm., and overestimation increased with size. The smaller squares and triangles ($r < 26$ and 29 mm., respectively) were in general underestimated, while the larger ones were generally overestimated.—F. A. Pattie (Harvard).

558. Marlow, F. W. Eye-strain in relation to functional neuroses. *Arch. Ophth.*, 1928, 57, 339-

345.—A case is reported in which the patient could not wear glasses which were an accurate correction for his refractive errors.—*C. W. Darrow* (Institute for Juvenile Research).

559. **Piéron, H.** *Les lois générales de la sensation.* (The general laws of sensation.) *J. de psychol.*, 1928, 25, 507-545.—A discussion of the mathematical relationships existing between sensory stimulation and response. The influence of intensity and duration, intensity and extension, variation of intensity as a function of duration, and the action of intermittent stimuli are considered. After canvassing the experimental work on sensory discrimination the author concludes that a general psycho-physical law of sensation is impossible. Even within one sensory field such, for example, as touch, there are so many variables that a single mathematical expression cannot adequately envisage them.—*N. L. Munn* (Clark).

560. **Piéron, H.** *Des lois régissant la variation de l'intensité sensorielle en fonction de l'intensité du stimulus.* (Laws governing the variation of sensory intensity and intensity of the stimulus.) *Rev. phil.*, 1928, 106, 261-279.—This article contains a discussion of Weber's and of Fechner's laws and their significance in the light of present-day knowledge. The chief points emphasized are, first, their limitation; the laws hold true only for the middle range and for quantitative rather than qualitative variations in experience. Second, the relation is between the physical and the biological rather than the physical and the mental reactions. Third, Weber and Fechner overlooked the importance of duration; the effect on sensory experience as stimulation is prolonged.—*T. M. Abel* (Illinois).

561. **Pradines, M.** *Philosophie de la sensation. Le problème de la sensation.* (The philosophy of sensation. The problem of sensation.) Publications de la Faculté des lettres de l'Université de Strasbourg. Fascicule 42. Paris: Société d'édition; Les belles lettres, 1928. New York: Oxford. Pp. 275. 30 fr.—The author wishes to relate sensitivity to intelligence. A science of fact ought to take its beginning from fact, and in the mental order the simplest fact is sensation. The cause of sensory intelligence must be looked for in some vital activity even more primitive than sensation. There are three main divisions in the book: (1) the problem of quality; (2) the problem of space and external perception (a critique of nativist doctrines; implicit, explicative, and reflex nativism; a critique of the doctrines of genetics; genetic explanation of visual space, of tactical space; and intellectualistic genetics); and (3) the problem of time and perceptive memory (time and quality, perceptive memory, memory as the effective function of perception, and the freeing of memory). He concludes by saying that what we call sensation corresponds less to a state than to an organic and psychological progress which starts from nearly pure impression and ends in pure expression. This progress is that of an imaginative and symbolizing intelligence which transposes into sounds and colors that which concerns it only in action. This sensorial intelligence is mechanical and accounts

at the same time for both sensation and memory. There is an author index at the end of the volume but no bibliography. Numerous bibliographic notes are to be found at the bottom of the pages.—*Math. H. Piéron* (Sorbonne).

562. **Rich, G. J.** *An eclectic theory of vision.* *Psychol. Rev.*, 1928, 35, 311-318.—After criticizing the Young-Helmholtz, Hering-Müller and Ladd-Franklin theories of vision, the author finds that the second explains colorless sensations in an adequate manner, while the third offers a satisfactory account of the psychophysical processes in chromatic vision. From these two he constructs what seems to be a satisfactory theory by postulating the following visual mechanisms in four developmental stages: (1) A primitive color molecule or photo-chemical substance without differential sensitivity either to intensity or wave-length, which mediates a gray; (2) differentiation of this primary color molecule with respect to intensity into two portions, one of which is sensitive to light of any wave-length and mediates white, and the other of which is a split product that mediates black on spontaneous decomposition; (3) differentiation of the white process with respect to wave-length into parts sensitive to short and long waves, and mediating, respectively, blue and yellow; (4) further differentiation of the yellow-sensitive part with respect to wave-length into portions mediating red and green. The whole follows a single schema and explains the phenomena of black and white by the same mechanisms as it does those of color.—*H. Helson* (Bryn Mawr).

563. **Roaf, H. E.** *The relation of wave-length and light intensity to color discrimination in normal and hypochromatic (color-blind) individuals.* *Quar. J. Exper. Physiol.*, 1927, 17, 379-392.—The maxima of discriminating power of the normal eye are characterized. Color-blind individuals show marked variation in the location of such maxima. Brightness differences and other clues are used as compensations by hypochromats.—*L. Carmichael* (Brown).

564. **Root, A. R.** *Auditory persistence, summation, and fusion in successive impulse-periods.* *Psychol. Rev.*, 1928, 35, 507-514.—The presence of beat and combination tones has led investigators to look, in part at least, to the nature of the compounded or resultant wave itself for an explanation of the hearing of these additive tones. The author's preliminary experiments indicate that the lead which these theorists are following may be entirely justified; that "timbre-quality" and pitch-quality complexes are the resultant of successive fusion of continuous or discontinuous impulse-periods effected through the persistence of auditory excitation and a process of summation. Siren discs were used with various patterns of holes placed at various distances apart, the time or distance interval between holes being designated as an "impulse-period," and by this means it is shown that a single impulse period is sufficient to produce the hearing of pitch-quality which is definite. The following facts were established by this procedure: in sounds of short duration in which there is a recurrence of a particu-

lar period, the larger the number of consecutively recurring periods the more tonal is the pitch-quality, the longer the duration, and the louder the sound up to a certain point, beyond which the law of diminishing returns is operative; the higher the rate of recurrence of an impulse-period the relatively more intense and dominant is the tone from this period; when an impulse-period recurs at irregular intervals, a noisiness is heard behind which is perceived a continuous uninterrupted tone corresponding to the recurring period; the sensation of a continuous, smooth, uninterrupted tone from periods created by intensity differences is not dependent upon a continuous recurrence of these periods; effective periods are created when there is a recurrence of periods which have intensity effects in common, while a period may be created between an impulse of small intensity and an impulse of larger intensity. The laws of hearing from these various patterns can be derived and stated without reference to any assumed simultaneously recurring components.—H. Helson (Bryn Mawr).

565. Tinker, M. A. A photographic study of eye movements in reading formulae. *Genet. Psychol. Monog.*, 1928, 3, No. 2, 68-182.—The author investigated the reading of formulae occurring in different types of material by an analysis of the records of eye movements. A modified form of the Stanford modification of the Dodge apparatus for studying eye movements was used. Four phases of the problem were studied: (1) the reading of algebra formulae in context; (2) the reading of chemical formulae in context; (3) the reading of isolated algebra formulae in lines; and (4) the length of eye movement and pause duration in reading various kinds of material. The records show that the reading of algebra formulae in context makes a much greater demand on the eye in number of fixations and regressions per line than does the reading of either scientific prose or algebra narrative. The records of mature students in reading chemical formulae in context show that this task is very similar in nature to the reading of algebra formulae in context. The elementary students showed various modes of reading the formulae. They read some formulae and omitted others. The same type of reading was demonstrated by the elementary students whether formula or name of compound came first in the line of print. The nature of the reading of isolated formulae was found to be essentially the same whether the reader had little, a moderate amount, or much training in the subject matter. The reading was mainly analytical in nature and was characterized (a) by a comparatively large number of fixations per line, (b) by comparatively long fixation pauses, (c) by many regressions of various types, and (d) by the bunching of fixations about fractions and compound exponents. In general it was found that the length of eye movements was less and more of the line was covered in the movements when formulae were in the material than when they were absent. The experiment as a whole has shown that the reading of formulae is quite different from the

reading of prose both in the motor phases and in the mental processes involved.—L. M. Harden (Clark).

566. Triepel, H. Raum und Zeit als Körper und Vorgänge. (Time and space as bodies and phenomena.) *Scientia*, 1928, 44, 297-307.—Neither time nor space is perceptible directly by means of the senses, but both involve serial sense impressions, and both must be learned about through experience.—R. G. Sherwood (Stillwater, Minn.).

567. Trimble, O. C. The theory of sound localization: a restatement. *Psychol. Rev.*, 1928, 35, 515-523.—A "difference-pattern" hypothesis is advanced to account for localization of sound which assumes the following: phase, time and intensity, and possibly mass, contribute to a difference-pattern that results in directional localization. Each factor contributes to the pattern to a varying degree, depending upon the magnitude of its difference in the different situations. Except when the source is in the median plane, one ear is always nearer the source of sound than the other, which means that there is always under such conditions a phase, a time, and an intensity difference at the ears. All of the factors may contribute more equally in situations in which their differences are more nearly equal. Directional localization is a cortical function, an immediate, unanalyzable experience in the sense that the "effects" of the different stimuli cannot be identified. The organs of hearing serve as mediating agencies for transmitting to the central nervous system the effects corresponding to the differences in the stimuli.—H. Helson (Bryn Mawr).

568. Wever, E. G., & Zener, K. E. The method of absolute judgment in psychophysics. *Psychol. Rev.*, 1928, 35, 466-493.—A certain degree of knowledge of a series of stimuli (lifted weights) was established, and single members of the series were presented for absolute judgment. The method of absolute judgment was then compared with the method of constant stimuli and it was found that the psychometric curves of the two were significantly alike. Certain differences in results point to a difference in attitude affecting the frequency of intermediate judgments, which raises the problem of a proper measure of differential sensitivity. Suggestions are made for the solution of this problem. The method of absolute judgment is regarded by the writers as a practicable method for use in psychophysical investigation.—H. Helson (Bryn Mawr).

[See also abstracts 623, 635, 646, 694, 842.]

FEELING AND EMOTION

569. Dashiell, J. F. Are there any native emotions? *Psychol. Rev.*, 1928, 35, 319-327.—A survey of the experimental literature shows that experimentation has failed to establish describable differences of any stable and consistent form between visceral reaction patterns of adults and the emotions. Nor are the emotional reactions of infants discriminable as distinct visceral reaction patterns corresponding to traditional names. "Emotional" and "emotions," the author believes, may still have validity

and use in psychological description as generic terms, but "emotions" as visceral pattern reactions may survive only as socially determined constructs.—*H. Helson* (Bryn Mawr).

570. *Marston, W. M. Emotions of normal people.* New York: Harcourt, Brace, 1928. Pp. xiii + 405. \$5.50.—After tentatively limiting the field of emotion to "the scientific description of affective consciousness" the author proceeds by defining consciousness. He presents evidence to show that consciousness is not inter-neuronic energy, but synaptic energy. The differentiating characteristics of conscious behavior are likewise characteristic of nerve impulses at the synapses of the central nervous system, hence the synapse is re-named "psychon." A "psychonic impulse" is the "completed excitation of any psychon from emissive pole of one neuron to receptive pole of the next." Consciousness, then, consists of "psychonic impulses, or psychonic energy." Sensation is "psychonic energy at sensory synapse." Evidence is presented in support of the theory that motor consciousness exists and that it alone is adequate to form a basis for emotional experience. From this a concept of the "motor self" as "continuous, tonic, motor discharge across motor psychons," or "psychonic impulses of tonic motor origin," is derived. Motor stimuli are "phasic motor impulses at the motor psychons." The reaction of the motor self to motor stimuli has two integrative principles; it "exerts an antagonistic influence towards the antagonistic motor stimulus, and facilitating influence toward the allied motor stimulus," and it "increases intensity in response to inferior intensity of the motor stimulus, and decreases intensity in response to superior motor stimulus intensity." The primary feelings, pleasantness and unpleasantness, represent respectively mutual facilitation and mutual antagonism of psychonic motor impulses. The "next simplest motivational compounds to primary feelings" comprise four primary emotions, compliance, dominance, inducement, and submission. These are composed of (1) "psychonic motor impulses of the motor self and the motor stimulus in relations of mutual alliance or conflict," and (2) "motor self increasing or decreasing its intensity in response to inferior or superior intensity of the motor stimulus." More than half of the volume consists of a detailed discussion of the four primary emotions postulated in the earlier sections. The author finds that all the emotions described in psychological and other literature are compounds of these four types of relation between motor self and motor stimulus. A schematic presentation shows them as four nodal points such as the four colors of the color pyramid. There are chapters on love behavior and love mechanisms, as well as a discussion of abnormal emotions. Wide use is made of neurological and psychological experimentation in the field.—*N. L. Munn* (Clark).

571. *Rich, G. J. Body acidity as related to emotional excitability.* *Arch. Neur. & Psychiat.*, 1928, 20, 589-594.—There exists a definite though low negative correlation between emotional excitability and bodily acidity. The writer's experiments, as well as the work of others, notably Ludlum and Starr,

show this to be true. The use of a ketogenic diet with epileptics further substantiates it. Tests show a positive correlation between the pH of saliva and the emotional excitability of the individual, and also a definite negative correlation between bodily acidity and emotional excitability. Testing conditions are necessarily not as ideal as those for testing intelligence.—*E. C. Whitman* (Boston Psychopathic Hospital).

572. *Stratton, G. M. The function of emotion as shown particularly in excitement.* *Psychol. Rev.*, 1928, 35, 351-366.—A detailed analysis of a case of excitement reported in the subject's own words leads the author to the following conclusions: Excitement and emotion generally are not causes of inadequacy, or reactions which reduce one's adequacy. They usually are reactions which increase our adequacy; they supplement our routine modes of response, which at the moment appear inadequate. An emotion helps us to meet an emergency by making more easily available, and by more perfectly organizing, whatever is of promise for success in our entire equipment, native and acquired, whether it be sensory, motor, intellectual, hedonic, or of impulse, whether instinctive or of habit. A mere study of behavior will not reveal a wealth of features present in the emotion. Points of agreement and disagreement with the theories of emotion offered by James and McDougall are brought out.—*H. Helson* (Bryn Mawr).

[See also abstracts 667, 807.]

ATTENTION, MEMORY AND THOUGHT

573. *Burloud, A. La pensée conceptuelle. Essai de psychologie générale.* (Conceptual thought. An essay on general psychology.) Paris: Alean, 1928. Pp. 412. 35 fr.—The author distinguishes two forms of intelligence: one is immanent to activity in general, while the other is manifested by special, properly called intellectual operations, such as judgment, reasoning, and comprehension. Concepts, or categories, are the habitual forms of intelligence. Intelligence, thus defined, is generally called understanding, but the author prefers the expression conceptual thought. Understanding is no more a faculty than is memory or imagination; it is only the assemblage of those concepts, those categories, by means of which we think. The concept is a consciousness of a twofold relationship: actual relationship which constitutes the idea, and intentional relationship which links it to a multiplicity of images capable of representing it. Understanding and reason, together with the logical forms which are of use in an understanding of the universe, represent the highest organization of consciousness, the last stage of the development which began with life and which is reflected in concepts. There are four parts to the work. In the first, the author studies the structure of the concept (consciousness of relationship, and the concept as the fact of consciousness). In the second, he discusses the formation and evolution of concepts (the lower, average, and

higher forms of conception, and the categories). The third part treats the functioning of the concept (intentional activity of thought, and its automatism). In the fourth part, the author deals with the relationships in conceptual thought and with invention and memory, and he ends by describing the relationship of consciousness and thought and the functioning of intelligence. A bibliography of approximately 120 words concludes the study.—*Math. H. Piéron* (Sorbonne).

574. **Burloud, A.** *La pensée d'après les recherches expérimentales de H. J. Watt, de Messer et de Bühler.* (Thought, according to the experimental researches of H. J. Watt, Messer, and Bühler.) Paris: Alean, 1928. Pp. 192. 15 fr.—The author proposes to expound and analyze the works of the Wurzburg school, especially the completed works of Watt, Messer, and Bühler. Watt has studied the simplest of ideational phenomena, directed recall or logical association. Judgment has been emphasized by Messer, and Bühler has made researches on the characteristic operation of intelligence, intellection. The author states the results of their researches with regard to the following three fundamental problems: (1) What are the relationships of thought to the image? Does pure thought exist? If it does, what is its relation to the image? Does thought follow after the image, or is the image the sequel of thought? (2) What are the specific elements of pure thought, and what are the principal types of thought? (3) How is the mechanism of ideation to be conceived of? Is thought to be considered an activity? There is no bibliography.—*Math. H. Piéron* (Sorbonne).

575. **Dimnet, E.** *The art of thinking.* New York: Simon & Schuster, 1928. Pp. xii + 216. \$2.50.—A conversational little book by a literary man, which takes the awesomeness away from logic and philosophy, shows that inferiority complexes and submission to habit are the enemies of thought, gives some hints on how to gather and elaborate data, and concludes with an encouraging chapter on creative thought.—*R. G. Sherwood* (Stillwater, Minn.).

576. **Gordon, K.** *A study of early memories.* *J. Delinq.*, 1928, 12, 129-132.—In order to test the theory that unpleasant memories fade more readily than pleasant, the author had 750 students write a description of their earliest memory, state their age at the time of the occurrence of the event recalled, and describe in terms of pleasantness or unpleasantness their emotional reaction to the event. Among the 462 memories of which the women students professed to be fairly certain, 35.2% were pleasant, 42.6% unpleasant. For 92 men the corresponding percentages were 25 and 53.2. In the case of the unpleasant memories the average ages of the women and men students when having the experience remembered were 3.50 and 3.61 years respectively; in the case of the pleasant, 3.58 and 3.79 years. The data, then, do not lend the theory of repression active support.—*H. L. Koch* (Texas).

577. **Gumpertz, K.** *Symbol und Symbolanalyse in der Psychologie und Psychobiologie.* (Symbol

and symbol analysis in psychology and psychobiology.) *Psychol. u. Med.*, 1927, 2, 161-172.—This is chiefly an attack on the symbolic theories of *Lungwitz*. The author traces the history of the term "symbol," as used by Kant, Hegel, Schopenhauer, Volkelt, Vischer, Köstlin, Lotze, Fechner, Siebig, Wundt, Spengler, and Freud. He concludes that symbolism has its proper place in philosophy and esthetics, but that it is not for the physician, the practical psychologist, or the jurist.—*M. F. Martin* (West Springfield, Mass.).

578. **Halberstadt, G.** *La critique du témoignage.* (The critique of testimony.) *Ann. méd.-psychol.*, 1928, 86, 32-39.—This paper consists of a detailed resumé of Gorphe's book entitled *La Critique du Témoignage*. The first part deals with the general technique of testimonial criticism, while the second "examines the value of testimony, of that instrument of proof, which is, as Gorphe so well said, 'living, intelligent, and autonomous' . . ." The third part takes up the value of testimony according to its circumstances, and the fourth, the conditions for the formation of testimony.—*P. A. Pooler* (Boston, Mass.).

579. **Julian, —.** *Untersuchungen über räumliche Prüfaufgaben.* (A study of spatial test-problems.) *Psychotechn. Zsch.*, 1928, 4, 117-138.—The author makes a comparative study of tests which involve cutting out, folding, composition and drawing from memory (the well-known form visualization). He made very careful individual analyses which point to degrees of difficulty in various types of problems and corresponding reasons for failure or mastery. The ages of the pupils tested and individual progress were considered in the results. It appeared that moving figures out of their natural plane increased the difficulty; and furthermore, that dynamics which is based on laws of form exercises a natural influence in the solution of the problem. The juxtaposition of individual parts, the ultimate impression of the final result, etc., are of great importance. The children and adults, furthermore, differ in their basic attitudes toward the naturalness or unnaturalness of configurations. These results are important for the analytical exploitation of visual tests in the diagnosis of vocational ability.—*F. Giese* (Stuttgart).

580. **Mandeville, S.** *La distraction.* (Distraction.) *Psychol. et vie; Rev. de psychol. appl.*, 1928, 2, 121-164.—Practical advice on combatting inattention.—*Math. H. Piéron* (Sorbonne).

581. **Markey, J. F.** *The symbolic process and its integration in children.* New York: Harcourt, 1928. Pp. xii + 192.—In good part this book is a highly abstract theoretical discussion of the nature and development of symbolic processes, which the author defines, in accordance with his definitely behavioristic point of view, as substitute responses which serve the same function in an organism's adjustment as would have been served by the part of the stimulus situation which is absent at the time. The content of symbols is primarily determined, not by the symbols themselves, but by what "the social experience of the individual of the group can bring

into them." Special emphasis is laid on the idea that social interaction is more than anything else responsible for the development of symbolic integrations. The book opens with a brief review of the conception among representative American sociologists of the origin and nature of the symbolic process. The author then presents his own point of view, which defines "psychological phenomena as composed of acts and actions on the part of biological organisms living in a world to which they respond." Next he reviews the factual data relevant to the problem. One chapter considers the delayed reaction experiments, while four are devoted to the studies that have been made of children's vocabularies, especially by the biographical method as used by Moore, Nice, etc. Analysis of these shows that the child's early vocabulary is essentially one of action-substitutes, and secondly, that symbolic development is at first centered around the self and only after that extends to include the other members of face-to-face groups and then absent persons. The last third of the book is an almost purely theoretical discussion of the nature of symbolic processes, their rôle in thinking, and the relation of the points brought out in this analysis to the problems of social control. A bibliography of about 250 titles concludes the book.—*R. Leeper* (Clark).

582. **McGeoch, J. A.** Some phases of human forgetting. *Quar. J. Univ. N. Dak.*, 1928, 18, 345-354.—The author presents a brief general summary of human forgetting. The Ebbinghaus forgetting curve is described and the effects of a number of conditioning factors are suggested, such as the kind of material learned, the degree of learning, the age of the subjects, intelligence and organic conditions of the subject. The phenomenon of reminiscence, the improvement-without-practice phenomenon, as described by Ballard and verified by others, is treated very briefly as another secondary condition of retention. This occurs only when learning material is meaningful and connected and is not completely learned. There is a distinct negative correlation between age and the amount of reminiscence, and it occurs more frequently with girls than with boys. Under primary conditioning factors of retention McGeoch discusses the problems of retroactive inhibition and altered environmental conditions. Similarly, the temporal point at which the interpolation occurs, and the degree to which original learning is carried are discussed as factors determining the degree of retroactive inhibition. Educational implications are suggested. The favoring influence upon retention of the original environmental stimuli is pointed out. Lastly the author treats briefly of Freud's theory that one forgets because he wants to forget. Most of Freud's cases can be explained in terms of retroaction or lack of the necessary eliciting stimulus. Perhaps the small residue must be explained by his theory, but that need "signify only a blocking of an act of recall by a motive, which is, fundamentally, a more generalized type of action or 'set' therefore." McGeoch

points to the field of learning and retention as one wherein the goal of science has been attained: under given conditions prediction and control are possible.—*L. M. Harden* (Clark).

583. **Sims, V. M.** The relative influence of two types of motivation on improvement. *J. Educ. Psychol.*, 1928, 19, 480-484.—Individual motivation, in which the subject competes against his own record and against those of others of like ability, is compared with group motivation, in which the subject, as a member of a group, competes against another group. The activities, improvement in which is thus motivated, are substitution and rate of reading. The two motivated groups and the control group are equated in the functions studied. Individual motivation is found to be superior to group motivation, which, in turn, is but slightly superior to no motivation "other than that which comes incidentally in learning."—*J. A. McGeoch* (Arkansas).

584. **Spight, J. B.** Day and night intervals and the distribution of practice. *J. Exper. Psychol.*, 1928, 11, 397-398.—"A complete rest is better than is a change of occupational activities" for the interstices between practices in learning word-pairs.—*S. Renshaw* (Ohio State).

585. **Störing, G.** Das urteilende und schliessende Denken in kausaler Behandlung. (A causal treatment of judgment and inference.) Leipzig: Akademische Verlagsgesellschaft, 1926. Pp. 232. M. 10.—In this book the author tries to analyze the process of inference, tracing its causal connections down to single elementary steps of thought. Thus it is shown that memories, reproductions, and products of phantasy are of importance in thinking. It is possible to distinguish between the former and the latter and to show what rôle the former play in the latter. The causal analysis of the separate steps of thinking affords an answer to the important question why it is that in pure thinking we not only proceed analytically but also arrive at new determinations.—*P. Plaut* (Berlin).

586. **Whitely, P. L., & McGeoch, J. A.** The curve of retention for poetry. *J. Educ. Psychol.*, 1928, 19, 471-479.—A study of the retention of six stanzas of poetry after 15, 30, 60, 90 and 120 days. A different group of college students was employed at each interval. The retention curve falls abruptly from immediate recall to recall after 30 days and very gradually from 30 to 120 days. It thus approximates in form the Ebbinghaus curve for nonsense syllables. The degree of retention is, however, much greater for poetry than for syllables. The percentages of retention at the intervals studied are 64, 44, 47, 41 and 28, respectively. The drop from 30 to 90 days is insignificant. Errors in recall increase from 15 to 30 days and decrease thereafter. Omissions, in absolute terms, tend to increase as interval lengthens.—*J. A. McGeoch* (Arkansas).

[See also abstract 899.]

NERVOUS SYSTEM

587. d'Hollander, F., & Ghisoland, S. Les voies cortico-thalamiques chez quelques petits mammifères. (The cortico-thalamic tracts in some small mammals.) *J. de neur. et de psychiat.*, 1927, 7, 497-510.—A report of comparative studies of the thalamic region in the rat, mouse, guinea-pig and hedgehog (Weigert-Pal-Kulschistky stain). The findings are in agreement with Kappers' hypotheses regarding the function of certain nuclei of the thalamus: The nucleus anterior, connected with olfaction, is especially developed in the hedgehog, in which the olfactory bulb also is of large dimensions; the nucleus medianus, closely related to the trigeminus, stands out particularly in the rat and mouse, where the oral sensibility is marked; the nucleus posterior (superficial zone), connected with the function of vision, is remarkably small in the hedgehog and well developed in the rat and still larger in the rabbit. A number of photographs and drawings of brain sections illustrate the article.—*H. C. Sys* (New York City).

588. Dye, J. A. Cell changes in the central nervous system under various natural and experimental conditions. First paper: parathyroid tetany. *Quar. J. Exper. Physiol.*, 1927, 17, 71-89.—A study of nerve cell change in relation to experimental removal of the specified glands of internal secretion. The symptoms of parathyroid tetany suggest an acute affection of the nervous system. Microscopic study of certain typical nerve cells from operated animals shows alterations which correspond closely to the acuteness of the attack. Cuts and bibliography appended.—*L. Carmichael* (Brown).

589. Dye, J. A. Cell changes in the central nervous system under various natural and experimental conditions. Second paper: cretinism in sheep and goats. *Quar. J. Exper. Physiol.*, 1927, 17, 91-105.—It is shown that nerve cell changes occur in operated animals. Such changes may be due to a state of depressed metabolism resulting from the loss of the thyroid principle. Bibliography and cuts appended.—*L. Carmichael* (Brown).

590. Dye, J. A. Cell changes in the central nervous system under various natural and experimental conditions. Third paper: functional activity. *Quar. J. Exper. Physiol.*, 1927, 17, 107-117.—The observations reported are based upon the microscopic study of preparations of the spinal cord, spinal ganglia, and Purkinje cells taken from fifteen white rats. Control animals were used in each experiment. Fatigue was produced by forced swimming. Various fatiguing periods were used. Mild but demonstrable nerve cell alterations were seen to result from fatigue. Cuts and bibliography appended.—*L. Carmichael* (Brown).

591. Economo, C. O. L'Architecture cellulaire normale de l'écorce cérébrale. (Normal cellular structure of the cerebral cortex.) French edition by Ludo van Bogaert. Paris: Masson, 1928. Pp. 183, with 61 figs. 7 fr.—This book is a résumé of a large volume by the same author, for the use of students. It furnishes in an accessible form the information

which is indispensable to a knowledge of the cortical structure, and permits the research student to find easily in the large volume those chapters which are of special interest to him. After a general consideration of the cellular structure, the author takes up in turn the lobes of the brain and their special fields: the frontal, parietal, insular, occipital, temporal, and limbic lobes. A bibliography of approximately 65 volumes concludes the study.—*Math. H. Piéron* (Sorbonne).

592. Herring, P. T. The pineal region of the mammalian brain: its morphology and histology in relation to function. *Quar. J. Exper. Physiol.*, 1927, 16, 125-147.—The mammalian pineal body is not a remnant of the parietal eye of reptiles. There is no evidence that the pineal body entirely ceases to function after puberty. The evidence concerning the activity of the internal secretion alleged to be produced by the pineal body is not complete. Bibliography and cuts appended.—*L. Carmichael* (Brown).

593. Mansfeld, G., & Láncoz, A. Über die Gültigkeit des Alles-oder-nichts-Gesetzes der Erregung. I. (On the validity of the all-or-nothing law of excitation. I.) *Pflüg. Arch. f. d. ges. Physiol.*, 1928, 220, 760-773.—An enumeration of the experiments in the field of nervous physiology which are at variance with the all-or-nothing law is given. The authors give evidence of their own that disturbance of the ratio of sodium-potassium to calcium content produces an influence which leads to a reduction of conductivity without complete absence of reaction. Electrical, mechanical, or chemical stimulation of the central nerve stump is still effective. The authors conclude that the validity of the all-or-nothing law for excitation of nerve fiber must be denied. Their objection is not against the absence of proportionality between stimulus intensity and response, but rather against the assumption of invariability of intensity of response when it occurs.—*L. T. Spencer* (Yale).

594. Pi-Suner Bayo, J., & Fulton, J. F. La influencia de las terminaciones nerviosas propioceptivas de las extremidades posteriores sobre la posición de las anteriores. (The influence of the proprioceptive terminations of the posterior limbs on the position of the anterior.) *Arch. de neurobiol.*, 1928, 8, 4, 176-183.—Observations were made relative to the influence exerted on the anterior limbs by the proprioceptive sensations proceeding from the quadriceps. The behavior of a decerebrated cat was studied in order to throw light upon the mechanism of coordination in quadrupeds.—*J. W. Nagge* (Clark).

595. Mazoué, H., & Mazoué, L. Variations de l'excitabilité de la moëlle et du réflexe médullaire par application locale de nicotine. (Variations in the excitability of the medulla and of the medullary reflex through local applications of nicotine.) *C. r. Soc. biol.*, 1928, 99, 392-394.—The authors have previously demonstrated that morphine applied to the medulla modifies the excitability of the crossed reflex in the frog and that the summation of excitations on the centripetal nerve ceases to be necessary for a motor response which appeared after a

single excitation. The authors wished to try to replace morphine by nicotine in solution, 3 drops per 100 cc. This solution was (1) placed in direct contact with the bared medulla, (2) applied to the sciatic nerve at the level of the cathode, which was placed at the junction of the lumbar nerves, and (3) applied to the sensitive tract at the cathodic point and simultaneously to the other sciatic nerve. The authors proved, as had been done for morphine, the appearance of the crossed reflex as the result of this unusual excitation.—*Math. H. Piéron* (Sorbonne).

596. *Rossello, H. La cronaxia.* (Chronaxy.) *Anal. d. Inst. d. Neur.*, 1928, 1, 193-203.—Time, as well as intensity, is one of the factors to be considered in the electrical excitation of a nerve, muscle or gland. The chronaxy is the minimum period of time that the excitation, a current of intensity equal to double that of the liminal threshold, must last in order to bring about a reaction. A nerve and the muscle innervated by it must have the same chronaxy to bring about a reaction. This explains the action of such drugs as curare. It is assumed that this latter substance alters the chronaxy of the muscle.—*J. W. Nagge* (Clark).

MOTOR PHENOMENA AND ACTION

597. *Benjamins, C. E., & Huizinga, E. Untersuchungen über die Funktion des Vestibularapparates bei der Taube. II. Über quantitative Messungen des Tonus und der Kraft in den Muskeln der Extremitäten und des Halses und über die Auslösungsstelle des Labyrinthonus.* (Investigations on the function of the vestibular apparatus in the pigeon. II. On quantitative measurements of the tonus and of the energy in the muscles of the extremities and of the neck, and on the local source of the labyrinthine tonus.) *Pflüg. Archiv. f. d. ges. Physiol.*, 1928, 220, 565-582.—*L. T. Spencer* (Yale).

598. *Bovard, J. F., & Cozens, F. W. The "leap-meter": an investigation into the possibilities of the Sargent Test as a measure of general athletic ability.* *Univ. Ore. Publ., Phys. Educ. Ser.*, 1928, 1, No. 2. Pp. 119.—Selecting as a criterion of general athletic ability a battery of four tests measuring fundamental bodily skills, the Sargent Test (best jump) offers a possibility of predicting general athletic ability. Reliability, based on 35 cases, was found to be $.61 \pm .072$. A validity coefficient of $.55 \pm .078$ was obtained with criteria of athletic ability.—*R. Stone* (Clark).

599. *Cornil, L., & Goldenfoun, Z. Sur une nouvelle méthode d'étude clinique des réflexes associatifs chez l'enfant: les réflexes tendineo-associatifs.* (On a new method for clinical study of the associative reflexes in children: the tendino-associative reflexes.) *C. r. Soc. biol.*, 1928, 99, 406-408.—The authors describe an effort to simplify the reflexological method. They chose the knee jerk, associating with the percussion which determines this reflex an unusual excitation, the sound of a tuning-fork. They obtained the formation of a tendino-associative reflex, bringing about a sudden contraction of the

quadriceps by means of the simple sound of the tuning-fork.—*Math. H. Piéron* (Sorbonne).

600. *de Castro, A. Reflejos cutaneos.* (Skin reflexes.) *Anal. d. Inst. d. Neur. Montevideo*, 1928, 1, 225-227.—The author calls the attention of the neurologists to some phenomena which he has noted in the field of cutaneous reflexes.—*J. W. Nagge* (Clark).

601. *Errecart, P. L. Prueba rotatoria.* (Rotary test.) *Rev. oto-neuro-oftal.*, 1928, 2, 262-267.—Author discusses value of rotary test in provoking vestibular nystagmus. He contrasts apparatus required to produce passive rotation (revolving chairs designed by de Buys, Errecart, Lemoyer-Hautant and others) with that of Moure, which causes active rotation. He also discusses procedure: the use of topolabyrinthograph; the othogonic meter (to determine position of semicircular horizontal canals); the Bartels glasses (to prevent convergence and fixation of vision), and the possibility of post-nystagmus and vertigo in spontaneously nystagmic subjects. Restating Ewald's law, relating to endolymphic current and direction of nystagmus, and that of Högyes (regarding primary and secondary nystagmus) author believes a reaction of 15" in either labyrinth indicates a non-sensitive condition while one of more than 40" indicates a hypersensitive labyrinth. He further finds the nystagmus in testing vertical canals is normally of 18" duration as against the normal 20" (plus 5") of the horizontal canals, and calls attention to an interesting nystagmus produced by simultaneous excitation of parallel vertical canals on opposite sides (right anterior-left posterior). The rotary test is, he finds, useful in studying Ruttin's nystagmus of compensation, in instances involving long-destroyed labyrinths insensible to the temperature test. He also finds the nystagmus produced by the rotary test useful in observing reactionary movements: A normal person showing a horizontal nystagmus toward left has a tendency to fall toward the right; and if, at the same time, the arms are extended perpendicular to the body, the inclination will still be toward the right, although modified. This tendency, common to all voluntary muscular movements of the body, is of value in diagnosing complications involving middle otitis.—*C. Burson* (Newcomb-Tulane).

602. *Errecart, P. L. Nistagmus calórico.* (Caloric nystagmus.) *Rev. oto-neuro-oftal.*, 1928, 3, 291-298.—The author, approving "classic" procedures, restates findings of Hoffer and Mayer regarding relation between direction of endolymphic current (induced by temperature variation) and the resulting nystagmus. He discusses Bárány's theory, which Hoffer confirmed in 500 instances in which he was able to produce a nystagmus and modify its direction according to the position of the subject's head and body. He also considers first appearance and duration of normal nystagmus induced by a temperature of 27° (Bárány); the Brünings experiment to determine the excitability or lack of sensitiveness of a labyrinth; the Errecart modification of the Brünings apparatus; the Ramadiez test at 30°; that of Kobrak, which begins with a temperature of

35°, reducing it successively to 34° and 30°, etc., and Ruttin's method which examines both labyrinths simultaneously to determine their relative irritability. These caloric tests, used with the rotary, are helpful in the study of muscular reactions and the vertigo they produce, and are of proven clinical value. However, they should not be considered mutually exclusive, and, especially in cases involving the posterior labyrinth, one should always supplement the other. (See Errecart in *Revista Médica Latino-Americana*, 1926.)—C. Burson (Newcomb-Tulane).

603. Errecart, P. L. Nistagmus por reacciones neumáticas y prueba eléctrica de Babinski. (Nystagmus by pneumatic reaction and the electric test of Babinski.) *Rev. oto-neuro-oftal.*, 1928, 3, 355-358.—While contraction of eye-ball or nystagmic movement, generally in direction of ear explored, is produced by compression of air in auditory canal and phenomenon is reversed when air is rarified, there are numerous cases in which contrary results are obtained. (Compare Ewald's findings in instances of labyrinthine fistula, Hennebert's syndrome, Bárány's and Urbantschitsch's experiences with acquired syphilitic neuro-labyrinthitis and Lund's contradictory experience.) The nystagmus produced by the pneumatic test is extensive and positive when both caloric and rotary tests show negative; therefore this test should not be accepted as final. Babinski's electric test (bi-polar) produces, at 1 to 8 milliamperes (generally at from 4 to 8), a distinctly salty gustatory sensation with a lateral movement attended by slight vertigo. This is followed, at from 10 to 25 milliamperes, by a nystagmus with more violent vertigo and a sensation of sound. Nevertheless the nystagmus can be produced with a 3 milliampere intensity and even with less. The author details apparatus and procedure for both uni-polar and bi-polar tests; the latter is more satisfactory in clinical practice because less severe; the former is violent but exact.—C. Burson (Newcomb-Tulane).

604. Ferrer, H. Propulsion de ojos voluntariamente. (Voluntary propulsion of the eyes.) *Rev. oto-neuro-oftal.*, 1928, 3, 403-407.—On July 20th, 1928, the author presented to the Academia de Ciencias of Havana, a case which he believes unique: a young man able to propel his eyes forward at will and maintain them in this abnormal position for several minutes. The subject, 19 years old, unable to read or write, of normal history, first manifested this ability at the age of 5 or 6 years and developed it through subsequent practice (to entertain or frighten his companions) until now one or both eyes can be propelled forward 9 millimeters; the movement can be more or less rapid as desired, and the return to normal (slightly protruding) can be accomplished without any discomfort to the subject and without impairing visual keenness, although the rotary movement of the eyes becomes restricted. The author explains the intricate process as a delicate timing of the contraction of major and minor oblique (or propelling) muscles so as to coincide with the relaxation of the four retracting muscles until more than half

the eye is forced beyond the normal orbit, when, by contracting the orbicular muscle, the position can be maintained or, by a reverse process, the eye can be returned to normal.—C. Burson (Newcomb-Tulane).

605. Fischer, M. H. Über lokale Einwirkung von Wärmestrahlung auf das Froschherz. (On the local effect of heat radiation upon the frog's heart.) *Pflüg. Arch. f. d. ges. Physiol.*, 1928, 220, 539-550.—Description of the blocking effect upon cardiac activity of direct heating of different parts of the heart by light rays.—L. T. Spencer (Yale).

606. Fleisch, A. Der Verkürzungsreflex des Darmes. (The shortening reflex of the intestine.) *Pflüg. Arch. f. d. ges. Physiol.*, 1928, 220, 512-523.—If the isolated small intestine of the guinea pig be pinched or stretched a peripheral reflex occurs, in the form of a widespread longitudinal contraction. Jejunum and ileum show a similar reflex. The contraction lasts from 5 to 30 sec., and amounts to from 5% to 40%. Latent time averages 0.36 sec. The reflex path involves the parasympathetic system. Nicotine, acetylcholin, and adrenin influence the contraction, while ergotamin apparently does not.—L. T. Spencer (Yale).

607. Gaskill, H. V. The relation of reaction-time to phase of breathing. *J. Exper. Psychol.*, 1928, 11, 364-369.—“The simple reaction time is slower when the stimulus (visual and auditory) occurs at the beginning of an inspiration or expiration than when the stimulus occurs during the inspiration or expiration.”—S. Renshaw (Ohio State).

608. Hayworth, D. The social origin and function of laughter. *Psychol. Rev.*, 1928, 35, 367-384.—The theory is presented and defended that laughter was originally a vocal signal to other members of the group that they might relax with safety. Whether the reaction is instinctive or conditioned makes no difference to this theory, because if not instinctive it is at least acquired early in life. Smiling develops out of laughter, laughing preceding smiling in the history of the race. Various objections and possible questions are raised and answered. On the other hand, anything which disturbs the feeling of social safety or individual triumph has its corresponding (negative) effect upon laughter. No one normally laughs unless he and his group are safe. Various kinds of laughter and tricks of producing laughter confirm the writer's theory. The theories of Hobbes, Bain, Bergson, Groos, Sully, Kant, Descartes, Spencer and Crile, Sidis, Eastman, Carus, and Patrick are briefly reviewed in the light of the author's theory.—H. Helson (Bryn Mawr).

609. Henssge, E. Die Messung des Körperwiderstandes bei Anwendung des galvanischen Stromes. (The measurement of the resistance of the body upon the application of the galvanic current.) *Psychol. u. Med.*, 1927, 2, 137-143.—Description of apparatus, tables of results, and bibliography are included. Most parts of the body show two different resistances. The resistance when the current is first applied is higher than the final resistance, a point of great importance in electrotherapy. The change in resistance may be due to the flow of sweat, stimu-

lated by the electric current. Dry skin ordinarily has a higher electrical resistance than moist skin. The quality of the perspiration is also important. Thick skin has usually a slightly greater resistance than thin skin; but the idea that the skin is the only factor involved in bodily resistance to electricity is disproved by high resistances of some thin-skinned children, and by the fact that hard-handed workmen often show no higher electrical resistance than delicate-skinned merchants. The highest resistances are found normally on finger tips, toes, palms of the hands, and soles of the feet; the lowest resistances over the large muscles of the extremities. Neurotics often show very low electrical resistances on their hands, even when free from perspiration. Atrophic muscles that have the reaction of degeneration show an abnormally low resistance; but atrophic muscles that do not have the reaction of degeneration have a higher electrical resistance than the corresponding muscles on the normal side. Resistance in the same patient for the same part of the body varies with the time and the weather, being on the whole lower on hot, dry days than on cold, wet days. The variability of neurotic patients is much greater than among the normal.—*M. F. Martin* (W. Springfield, Mass.).

610. Hollingworth, H. L. How we learn our reflexes. *Psychol. Rev.*, 1928, 35, 439-442.—Many reaction patterns hitherto classed as native reflexes may be learned if the response, accidentally caused, produces, among other results, a stimulation similar to that which, later in history, we find to be its normal stimulus. In such cases the reflex may be said to produce its own stimulus.—*H. Helson* (Bryn Mawr).

611. Huter, C. *Physiognomik und Mimik als Erfahrungswissenschaft*. Schwaig b. Nürnberg: Verlag d. Original-Huterwerke, 1928.—*W. S. Hunter* (Clark).

612. Johnson, B. Changes in muscular tension in coordinated hand movements. *J. Exper. Psychol.*, 1928, 11, 329-341.—Five adults and nine children between 2 and 6 years of age tapped a Dunlap tapping plate for one minute with each hand. A pneumatic stylus with kymographic recording indicated speed and pressure. "The differences in tension between individuals at the same level of practice . . . suggests that this measurement may contribute to the study of individual differences in the fundamental tendencies often called temperamental traits."—*S. Renshaw* (Ohio State).

613. Langworthy, O. R. The control of posture by the central nervous system. *Physiol. Rev.*, 1928, 8, 151-190.—Bibliography of 96 titles. Studies of the anatomy and physiology of posture and locomotion are reviewed.—*C. W. Darrow* (Institute for Juvenile Research).

614. Lau, —. Ueber die Veränderlichkeit des persönlichen Rhythmus. (On the modifiability of personal rhythm.) *Psychotechn. Zsch.*, 1928, 3, 101-102.—He finds that the efforts of the same individual to beat time during various activities do not reveal an identical rhythm.—*F. Giese* (Stuttgart).

615. Miller, S., & Konorski, J. Le phénomène de la généralisation motrice. (The phenomenon of motor generalization.) *C. r. Soc. biol.*, 1928, 99, No. 28, 11-58.—The authors have established two conditioned reflexes of the second type: one consisted in the dog's raising his hind paw following a sound from a piano; the other consisted in the raising of the fore paw following the lighting of an electric lamp. In both cases food was the reinforcing excitant. The authors found another method of arousing, with the aid of the conditioned excitant, a reaction which up to that time had not been the result of that excitant but of another. This is what they call motor generalization. This generalization appears to extend only to movements belonging to conditioned reflexes of the second type of the same family as that of the primary reflex.—*Math. H. Piéron* (Sorbonne).

616. Offner, M. Die geistige Ermüdung. Eine umfassende Darstellung. (Mental fatigue; a comprehensive presentation.) Berlin: Reuter & Reichard, 1928. Pp. 180. M. 4.80, Lw. 6.50.—*R. R. Wiloughby* (Clark).

617. Plattner, F. Über die Frequenz der Muskelaktionsströme bei der Grosshirnreizung. (On the frequency of the action current of muscle with cerebral stimulation.) *Pflüg. Arch. f. d. ges. Physiol.*, 1928, 220, 583-587.—Stimulus frequencies from 35 to 300 per second were applied to the cerebrum of the dog. Frequencies shown by the action current in muscle of the fore leg followed the stimulus frequency closely up through 200 per second. With a stimulus frequency of 300 per second the action current showed a frequency ranging between 110 and 180 per second, with some irregularity in the size of the wave formation. This agrees with others' findings for apes and shows a synchronism of discharge up to the frequency present in voluntary innervation.—*L. T. Spencer* (Yale).

618. Podkopaew, N. A. Die Methodik der Erforschung der bedingten Reflexe. (The methods of investigating conditioned reflexes.) Bergman, 1926. Pp. 64.—The author's task was to present in a systematic way the methods of investigating conditioned reflexes as worked out in Pavlov's laboratories. The book contains five chapters. The first describes the operative formation of a chronic fistula of the glans parotis and glans submaxillaris. The second describes the methods used in the sound-proof cells, the measurement of the flow of saliva by the eye and by electromagnetic devices. Diagrams are added of a sound-proof cell that may be constructed in any laboratory and of a number of automatic stimulators of the eye, ear, skin and smell analyzers. The next chapter describes the positive conditioned reflexes in all their modes (simultaneous, delayed, and trace reflexes) and the negative conditioned reflexes (extinction, differentiation, conditioned inhibition). The very important Chapter IV points out the many disturbing difficulties, as sleepiness, unrest, refusal to eat, the changing strength of the reflex, etc. The last chapter contains a plan for the special housing of the dogs used for such experiments with a description of their care and treatment. There is a

bibliography of all investigations that originated in Pavlov's laboratories.—N. A. Podkopaev (Lenin-grad).

619. Rich, G. J. The reaction of human mixed saliva. *Quar. J. Exper. Physiol.*, 1927, 17, 52-56.—Saliva is normally very close to neutral, but is more often acid than alkaline. References are appended.—L. Carmichael (Brown).

620. Schaltenbrand, G. The development of human motility and motor disturbance. *Arch. Neur. & Psychiat.*, 1928, 20, 720-730.—During the development of human motility some peculiar reflexes appear and later disappear, e.g., position of sitting in infants and children as opposed to the manner in which adults come to a sitting position. A number of these reflexes existing during the second half of the first year of life are similar to reflexes of four-legged animals. Under pathologic conditions of the brain, all the primitive reflexes of childhood may reappear or may be preserved for an abnormally long time. One observes tonic neck reflexes on the limbs, a kind of Moro reflex in the decerebrate condition, and in other cases of brain disease, a "quad-rupedal syndrome" with a positive neck righting reflex and the primitive form of rising from the floor to a standing position.—E. C. Whitman (Boston Psychopathic Hospital).

621. Schulte, R. W. Medizinisch-psychologische Beobachtungen bei einem Fallschirmsprung. (Medico-psychological observations of a parachute jump.) *Psychol. u. Med.*, 1927, 2, 222-225.—A parachute jumper fell more than five hundred meters before his parachute opened, without losing consciousness at all. The only discomforts experienced were at the instant of leaping from the plane, and at the instant the parachute opened, when the sudden check of his velocity gave him a jolt. Physicians in the aeroplane recorded the jumper's pulse beat before the start and at various stages during the ascent, watched the jump itself, and recorded introspections and various physiological measurements immediately after the landing. The jumper was instructed to keep calm and breathe deeply. This probably helped to minimize ill effects.—M. F. Martin (W. Springfield, Mass.).

622. Souriau, E. L'Effort. (Effort.) *Psychol. et vie; Rev. de psychol. appl.*, 1928, 2, 142-146.—Effort is not a more or less laborious act of will, but it is the feeling itself of labor and contention which appears from the very beginning. There is no physical effort; there is only intellectual effort which discloses to us an entirely ideal struggle between two ideas. Our failures are always caused, not by the absence of a force, but by the efficacy of a pure idea.—Math. H. Piéron (Sorbonne).

623. Tinker, M. A. Eye movement duration, pause duration, and reading time. *Psychol. Rev.*, 1928, 35, 385-397.—Eye movements were photographed during the reading of four different kinds of material: scientific prose, elementary chemistry, algebra (statement and solution of an easy problem and descriptive material), and four degrees of complexity of algebraic formulae. For all materials, less

than 10% of the reading time was taken by eye movements. The total average showed that only 5.9% of the reading time was consumed by eye movements. This allowed about 94% for perception, i.e., pauses. The ratio between eye movement duration and reading time bore a constant relationship to the reading attitude. It was found that the more careful and analytical the reading the smaller this ratio. When the mental processes involved in the reading were more complex the reading pauses consumed a relatively greater percent of the total time. Summaries of the work of earlier investigators are given and discussed.—H. Helson (Bryn Mawr).

624. Winsor, A. L. Conditions affecting human parotid secretion. *J. Exper. Psychol.*, 1928, 11, 355-363.—Suction disk cups similar to those of Lashley and Krasnogorski were applied to the openings of Stensen's ducts and the excreted saliva measured. The effects upon secretion of various activities such as swallowing, yawning, reclining, reading, chewing food, sleep, sight of orange, lemon, peppermint candy, with one male subject are reported. The secretory activity of the parotid is claimed to be an indicator of conditioning sensitive and reliable enough to make its study "an inviting approach to such important aspects of behavior as association, differentiation and inhibition."—S. Renshaw (Ohio State).

625. Zernik, H. Zur Anatomie und Nervenphysiologie der Nickhaut des Katzenauges. (On the anatomy and nervous physiology of the nictitating membrane of the cat's eye.) *Pflüg. Arch. f. d. ges. Physiol.*, 1928, 220, 593-598.—The nerve and muscle supply of the nictitating membrane are described. The retraction and extension of the membrane may be regarded as active movements.—L. T. Spencer (Yale).

[See also abstracts 532, 536, 565, 571, 588, 589, 590, 638, 658, 734, 777, 807, 872, 880, 881, 944, 959, 987.]

PLANT AND ANIMAL BEHAVIOR

626. Auger, —, & Fessard, —. Observation sur l'excitabilité de l'organe tympanique du criquet. (An observation on the excitability of the tympanic organ in the locust.) *C. r. Soc. biol.*, 1928, 99, 400-401.—Some locusts (*Acridium aegyptium*), their heads having been cut off, reacted to certain vibratory excitations transmitted through the air. The strongest noises were not the most efficacious. The authors suspected that the question was one of selective effect of vibrations of a high frequency. They utilized a series of König cylinders which gave from 4,096 to 32,768 complete vibrations per second, and they established the fact that the reactivity was more pronounced for vibrations not perceptible to the human ear (from 15,000 to around 20,000) with an optimum frequency between 15,000 to 20,000 double vibrations, a condition which suggests a resonance phenomenon. This optimum varies, moreover, in the same insect with temperature and particularly with humidity. The tympanic organ is clearly the

cause, for the reactions are suppressed when it is destroyed or when its functioning is prevented (by the use of vaseline, for example).—*Math. H. Piéron* (Sorbonne).

627. Burt, W. H. Additional notes on the life history of the Goss lemming mouse. *J. Mammalogy*, 1928, 9, 212-216.—Habitat includes plan of a used runway. "... When brought into the laboratory (they) often seemingly worry themselves to death."—*H. C. Bingham* (Yale).

628. Cameron, N. Cerebral destruction in its relation to maze learning. *Psychol. Monog.*, 1928, 39, No. 1. Pp. 68.—A universal adjustable maze was used in the construction of 5 complex maze patterns. Maze Ia was maze I slightly modified; maze II differed from both; maze IIa was a modification of II; and IIb in turn was IIa modified. The experimental sequence for group A of the white rats was as follows: maze I, learned, and followed by 6 days without running; Ia, learned, followed by 6 days without running; II, learned, followed by 6 days without running; operation, followed by 13 days of rest; maze II, run until relearned, followed by 6 days without running; IIa, relearned, followed by 6 days without running; maze IIb, relearned. Group B was not put through I and Ia; the rats in this group were operated upon before they were given II; after this, they were put through the same sequence as group A, beginning with II. Group C was given the same sequence as A, but these rats were not operated on at all. Group D was given the same sequence as B, but these rats were not operated upon. Contrary to the results obtained by other investigators, destruction of small portions of cerebral cortex results in disturbances of learning and retention of maze habits and to adaptations to changes in maze patterns. The beginning parts of the learning curves are similar for both normal and operated animals; all modifications of learning appear in latter parts of the curves. The disturbances were not caused by surgical shock, for a minimum period of two weeks intervened between operation and testing; moreover, such effects should show in initial period of learning. The results cannot be explained in terms of the loss of specific cortical functions, for the disturbance did not consist of a prolongation of a few specific errors; rather, it involved a normal distribution of errors. The disturbances were general and not specific. Operated animals did not meet the maze problem as a whole as adequately as normal animals. The conclusion is suggested that the cerebral cortex represents a closely integrated functional system, and that an injury to the frontal lobe results in a disturbance of a physiological equilibrium or configuration. The fact that operations on untrained as well as trained animals resulted in similar differences from normal learning behavior indicates that the cortex is not equipotential.—*F. A. C. Perrin* (Texas).

629. Gregory, T. A few white-footed mouse pictures. *J. Mammalogy*, 1928, 9, 205-208.—Methods of photographing in the field. 1 plate of flashlight photographs.—*H. C. Bingham* (Yale).

630. Hall, E. R. Notes on the life history of the sage-brush meadow mouse (*Lagurus*). *J. Mammal-*

ogy, 1928, 9, 201-204.—Naturalistic "facts about the habits of these mice and concerning their summer and winter homes" along the California-Nevada boundary.—*H. C. Bingham* (Yale).

631. Hartman, O. The period of gestation in the monkey, *Macacus rhesus*, first description of parturition in monkeys, size and behavior of the young. *J. Mammalogy*, 1928, 9, 181-194.—A contribution to the life history of the monkey. Gestation with laboratory facilities was observed from conception to birth, the period varying in different subjects from 159 to 174 days. Menstrual histories, matings, evidences of conception, and behavior of a parturient female and new born baby are reported. Bibliography and 2 plates.—*H. C. Bingham* (Yale).

632. Heuzé, P. La plaisanterie des animaux calculateurs. (The farce of animal calculators.) Paris: Editions de France, 1928. 12 fr.—The article deals in a critical way with experiments done on "thinking" animals, on the mathematician horses of Elberfeld and on clever dogs. The author concludes that in his opinion, there are no thinking animals.—*Math. H. Piéron* (Sorbonne).

633. Holmquist, A. M. Studies in arthropod hibernation. II. The hibernation of the ant *Formica ulkei* Emery. *Physiol. Zoöl.*, 1928, 1, 325-355.—Every ten days, between Sept. 1 and June 26, a part of an ant nest was excavated. By Sept. 10 the pupae were all carried to the lower part of the nest and many of the worker ants were in loose, small aggregations at the same level. Ten days later the pupae had emerged and the ants were packed in the saturated clay near the level of the soil water. Surface activity ceased after Nov. 1. The emergence from hibernation was gradual during April 2 to May 14. A downward and upward migration of the ants was found which corresponded with the fall and rise of the soil water level in the nest. Worms, isopods, spiders, beetles, etc., were found in the deserted burrows of the nest but not among the ants. The hibernating ants were barely able to crawl to cover when disturbed, but quickly returned to normal activity when taken indoors. The moisture content of the ants was reduced from 75% to 61% during hibernation and the respiration quotient of the hibernating ants was 1.076 at 3-6° C. and of the normal ants was 0.888 at 20-25° C. The temperature of the ant aggregations corresponded closely to the air temperature near them. It is concluded that this species of ants does not exhibit a true hibernation. While instinctive phenomena are not entirely ruled out the hibernation does seem to be a response to lowered temperature. It may be that the winter aggregation represents merely an incidental congregation within a more or less limited optimal portion of the nest.—*O. W. Richards* (Clark).

634. Hovey, H. B. The nature of the apparent geotropism of young rats. *Physiol. Zoöl.*, 1928, 1, 550-560.—The upward creeping of rats is here indicated to be the result of a learning process rather than a tropistic response. The time was measured for the rats to reach the top of the inclined plane after they were placed at the center of the surface

and falling or going to the side of the surface was counted as error. The plot of these data suggested a learning curve, because less time was required during the later trials when the animals were two days older. Hovey concludes that upward climbing is stimulated by a geokinesis, or gravitational stimulus, and that inhibitions against slipping then result in upward climbing becoming a conditioned response. A rectilinear relation was found between the logarithm of the gravitational pull and the angle of the path on the plane. Paths on either side of the vertical were about equally frequent for the twenty animals used. The interpretation that upward creeping of young rats, with unopened eyes and on an inclined surface, is a learned conditioned response is emphasized as contradicting the theory of Crozier that such creeping is a tropistic response.—O. W. Richards (Clark).

635. Keeler, C. E., Sutcliffe, E., & Chaffee, E. L. A description of the ontogenetic development of retinal action currents in the house mouse. *Proc. Nat. Acad. Sci.*, 1928, 14, 811-815.—The development of action current responses in normal intact mice was studied by means of an Einthoven string galvanometer, with a two-stage amplifier. The first potential differences were visible at the 13th or 14th day; the size and pattern of the deflection undergoes changes with age, but even at 21 days remains smaller than the deflection in adult specimens. An increase in the magnitude of response can be shown in cases of dark-adaptation.—H. E. Jones (California).

636. Leuba, J. H. Morality among the animals. *Harpers*, 1928 (no. 937), 97-103.—The writer believes that no sharp separation can be made between man and animal in regard to moral endowment. Animals possess four of the foundations upon which morality is built: (1) They recognize property rights, especially in regard to the nest and its surroundings. (2) They show something similar to shame when disobedient or when corrected. (3) They show cooperation and disinterested, affectionate helpfulness. Acts of generosity and protection are often observed among apes and monkeys. (4) Animals sometimes express thankfulness for aid and care, as shown by several of Köhler's observations.—J. R. Liggett (California at Los Angeles).

637. Liddell, H. S. The behavior of sheep and goats in learning a simple maze. *Amer. J. Psychol.*, 1925, 36, 544-552.—The animal proceeds up a central alley away from the food box, turns right or left and returns through alleys either of which may be cut off. There are great individual differences in timidity, propensity to graze, etc.; learning occurs in both normal and cretin animals, and adjustment takes place after the problem is reversed. There is strong evidence for kinesthetic stimuli, and audition is a factor to some extent. Adult animals will not attempt the maze unless they have been trained when young. There is no conspicuous difference between the species in learning ability.—R. R. Willoughby (Clark).

638. Liddell, H. S. Higher nervous activity in the thyroidectomized sheep and goat. *Quar. J.*

Exper. Physiol., 1927, 17, 41-51.—A study of the effect of thyroidectomy on the intelligence of sheep and goats. A three-alley maze, sixty-seven feet in length, was used. In physiological terms this suggested that there is a weakening of the inhibitory processes of the cerebral cortex of the operated animals. Cuts are given showing sections of motion picture films taken of the animal in the maze. References are appended.—L. Carmichael (Brown).

639. MacGillivray, J. Mickey the beaver. *Nat. Geog. Mag.*, 1928, 54, 740-756.—After locating a beaver which would work before the camera, the author breached the animal's dam on eighteen different mornings and took still and motion pictures of the repair work (23 of the former are reproduced). An hour and a half in the afternoon (the animal was very punctual) sufficed in each case to remove all evidences of the breach; a fairly regular series of procedures was used, including the driving of stakes, but there was some variation. Some of the habits of the beaver are recounted; on occasion the animal will dig canals to shorten the dangerous dragging of logs overland, tap springs to increase the water supply, ventilate the under-water house, and extricate a desired log from a felling tangle.—R. R. Willoughby (Clark).

640. Miller, G. S., Jr. Some elements of sexual behavior in primates and their possible influence on the beginnings of human social development. *J. Mammalogy*, 1928, 9, 273-293.—Evidence is presented "to show that some zoölogical aspects of sex which appear to be little known to anthropologists are not now given the place that they demand in speculations bearing on these beginnings." Recent studies of sexual behavior in monkeys and apes are cited in refutation of the accepted belief. The author concludes that man does not possess a type of sexual psychology which differs radically from that of all other primates; that a stage of simian horde life, with its attendant sexual promiscuity, lies somewhere in the ancestry of existing social systems; and that "the modifications of the promiscuous primate mode of life which we now find in human societies would probably have arisen under the influence of . . . a socially effective sentiment of love and a realization of the physical possibility of rape."—H. C. Bingham (Yale).

641. Ogden, C. K. The mind of a chimpanzee. London: Kegan Paul, 1928.—W. S. Hunter (Clark).

642. Sageret, J. Pour lire les livres d'histoire naturelle. (Regarding the reading of books on natural history.) *Psychol. et vie; Rev. de psychol. appl.*, 1928, 2, 168-170.—The author endeavors to put readers on their guard against the danger of anthropomorphism, i.e., the act of projecting one's own human nature into things or living creatures.—Math. H. Piéron (Sorbonne).

643. Skinner, M. P. The elk situation. *J. Mammalogy*, 1928, 9, 309-317.—The behavior of elk in the Yellowstone National Park is discussed in relation to protection.—H. C. Bingham (Yale).

644. Struthers, P. H. Breeding habits of the Canadian porcupine (*Erethizon dorsatum*). *J. Mam-*

malogy, 1928, 9, 300-308.—Deals with the behavior associated with breeding and with the changes that occur throughout life. Five references and two plates.—H. C. Bingham (Yale).

645. Tinklepaugh, O. L. The self-mutilation of a male *Macacus rhesus* monkey. *J. Mammalogy*, 1928, 9, 293-300.—"This account deals with the self-mutilation of a male monkey after he had formed what was evidently a monogamous attachment for a female of different species and then had another female of his species introduced into the situation." With his teeth he lacerated his legs, ripped his scrotum open, and mutilated the end of his tail. His behavior accompanying various changes in his social environment is reported. Some fourteen months later he was maintaining what seemed to be normal sexual relations with two females.—H. C. Bingham (Yale).

646. Verrier, L. Le pH des milieux oculaires chez les poissons. Ses variations sous l'action de la lumière. (The pH of the ocular media in fishes. Variations under the action of light.) *Bull. mus.*, 1928, 194-196.—The more or less prolonged action of light determines important modifications in the retina. The author has made studies on these modifications by a determination of the acidity or alkalinity of the retina by means of measuring the hydrogen ion concentration (pH). In all the species studied the vitreous body was found to be alkaline, the crystalline body being slightly acid. The retina in a state of repose was found to be sometimes alkaline, sometimes neutral. A state of fatigue brought on by intense illumination rendered the retina acid. These reactions are similar to those found in vertebrates. Only the eel was an exception, for its retina is clearly acid in the state of repose as well as in the state of fatigue.—Math. H. Piéron (Sorbonne).

647. Warren, E. R. Beavers in the Elk Mountain region, Colorado. *J. Mammalogy*, 1928, 9, 320-334.—Describes the work of beavers with some references to behavior.—H. C. Bingham (Yale).

648. Weydemeyer, W. Local change in migration habits of the mule deer. *J. Mammalogy*, 1928, 9, 209-212.—Reports a sudden and complete change of winter range in a section of Montana and "credits this mammal with a very good memory."—H. C. Bingham (Yale).

[See also abstracts 587, 589, 590, 597, 615, 617, 618, 625.]

EVOLUTION AND HEREDITY

649. [Anon.] The Population Union. *Eug. Rev.*, 1928, 20, 179-182.—The newly formed International Union for the Scientific Investigation of Population Problems is described. The objects of the Union are to organize and encourage research, to coordinate such researches, and to hold a general assembly every three years. National committees have already been formed or projected in seventeen different countries.—B. S. Burks (Stanford).

650. Drysdale, C. V. The birth control movement. *Eug. Rev.*, 1928, 20, 173-178.—The ideal of

birth control should be to imitate as closely as possible by conscious selection Darwin's principle of natural selection. The results to be expected from scientific application of the principle are increased longevity, a higher standard of living, and the elimination of an important cause of war, i.e., over-population.—B. S. Burks (Stanford).

651. East, W. N. Heredity and crime. *Eug. Rev.*, 1928, 20, 169-172.—The author summarizes current views upon the heritability of criminal tendencies, together with some recent evidence for the transmission of mental abnormalities.—B. S. Burks (Stanford).

652. Eugenics Society. Sterilization Bill. *Eug. Rev.*, 1928, 20, 166-168.—A first draft for a projected sterilization bill is offered by the Eugenics Society. Explanatory memoranda are appended, and also a brief summary of existing laws in the United States, Canada and Switzerland.—B. S. Burks (Stanford).

653. Fisher, R. A. The differential birth rate. *Eug. Rev.*, 1928, 20, 183-184.—The theory is advanced that hereditary factors rather than social ones account for the low birth rate of the upper classes. If the factors are hereditary, "the fertility of the upper social classes must be kept low by the lower fertility of those whom social promotion brings into their ranks, the movement downwards of the more fertile members of the upper classes being relatively a very feeble one; while the fertility of the upper class would be expected to recover if it were left to itself, by the replacement of its more fertile strains. Consequently the groups enjoying rapid social promotion should, on this theory, be even less fertile than the classes to which they rise." Employing data from Huntington and Whitney, Fisher shows that of Americans in *Who's Who*, those whose social promotion has been most striking have on the average fewer children than those whose social promotion has been less, thus corroborating his theory. He also interprets data from Huntington and Whitney upon the superior records of Yale students coming from large families as due to selection rather than to environmental advantage.—B. S. Burks (Stanford).

654. Himes, N. E. Work of birth control clinics. *Eug. Rev.*, 1928, 20, 157-165.—The study is based on the records of seven English and two Scottish clinics. The occupational status of the husbands of women served by the clinics is analyzed. "Briefly one can say (1) that the clinics are serving the unskilled, but that (2) they have been aiding the skilled to a considerable extent also; (3) that they have been powerless so far to limit the reproduction of those fertile individuals in the community who constitute a serious problem—the feeble-minded, the insane, the chronic paupers, and the persistent leaners on the State."—B. S. Burks (Stanford).

655. Lange, J. Über Anlage und Umwelt. Zwillingsbiologische Betrachtungen. (Heredity and environment. Views on the biology of twins.) *Zsch. f. Kinderforsch.*, 1928, 34, 377-390.—(From the German society for the study of psychiatry—Kaiser Wilhelm Institute in Munich.) That which we receive

as a heritage from our parents determines our fate in an unsuspected measure. Identical twins can be considered as having practically the same inheritance. The common heredity shows itself very clearly even late in life, provided that alterations do not result from gross external influences. Many presumably valid results of education will be washed away by newly developing hereditary traits. Clarity on the whole complex question can be reached only through close cooperation between educators and doctors, and by following pairs of twins over very long periods of time. The author gives as an example of his statement a description of two old women who were twins but whose lives had been very different. Within a few days both became mentally ill independently of each other in exactly the same manner and—contrary to all expectation—in a few days both improved very considerably.—*O. Seeling* (Berlin).

656. Popenoe, P. **Eugenic sterilization in California.** 14. The number of persons needing sterilization. *J. Hered.*, 1928, 19, 405-411.—About 5% of the population suffer from serious mental deficiency (IQ's below 70); about 4% have been or at some time in their lives will be inmates of an institution for mental diseases. The number of persons carrying inheritable physical defects is even larger than that carrying the more severe forms of mental abnormalities. "In view of the great numbers of affected persons, it is concluded that the state must take an immediate and active interest in voluntary as well as in compulsory sterilization."—*B. S. Burks* (Stanford).

657. Popenoe, P. **Marriage after eugenic sterilization.** *Proc. & Addr. Amer. Asso. Stud. Feeble-Mind.*, 1928, 33, 62-76.—Sterilization of the feeble-minded has been in practice in California since 1909. During this time 527 males and 796 females have undergone this operation. A liberal policy of parole is in practice. 129 are known to have married, of which all but 5 are women. Two-thirds were judged successful while one-third have failed. The fact of their sterilization does not seem to have caused the failure. The success of the marriages is discussed in relation to the father's and husband's economic status, the family history, the woman's mentality, her early behavior, and the length of time spent under supervision.—*M. W. Kuenzel* (Vineland Training School).

658. Rosenow, C. **One more definition of heredity and instinct.** *Psychol. Rev.*, 1928, 35, 434-439.—Heredity is a phase of evolution. It refers to the constancy of certain products amidst the changes of evolutionary process. Instinct is a form of meaningful behavior if, and so far as, it has developed during the history of the species and of the individual as an adaptation to biological necessity.—*H. Helson* (Bryn Mawr).

659. Woods, F. A. **Perpetuation of old families.** *J. Hered.*, 1928, 19, 387-398.—The author supports the theory of social "conifcation" by showing that "wealth and power do not as is often asserted lead to idleness, sterility and mental degeneracy." While it is true that many male lines tend to die out, "much of this is due to some names gaining numbers at the

expense of others. If sons are born then the name continues, but if only daughters are born then the name ends." It is shown that "334 of the 622 British peers (of 1921) are continuously aristocratic in the direct male line of their family trees to as early as the year 1450. . . . The history of the royal families shows no general degeneracy of the group as a whole."—*B. S. Burks* (Stanford).

660. Woods, F. A. **Aristocracies and mental evolution or social "conifcation."** *Metron*, 1928, 7, 121-142.—The author presents a summary of statistical evidence collected by himself over a period of 25 years to indicate that normally there are forces at work tending to improve the biological quality of the extreme upper portions of the social structure. He employs the history and genealogy of royal families and British genius, the records of 71 leading families of Boston and suburbs and their 3,000 descendants, and records of four classes of Harvard graduates. The term "conifcation" refers to the plotting of numerical strength (abscissa) of the social classes against preeminence (ordinate)—a cone-shaped figure resulting; the more aristocratic the social structure the finer, more fragile and more remote is the conical apex, and vice versa. Royalty affords no convincing evidence of degeneracy due *per se* to the assumption of rank and power. The conifcation process in respect to wealth of New England families is marked. A comparatively homogeneous population, as to wealth, of the 17th century (the richest man being perhaps only 50 times as rich as the average) resulted in the 18th century in the richest man becoming 300 times as rich as the average, 600 times in the 19th, and 10,000 or more in the 20th. The tendency to caste formation through inter-marriage of these 3,000 persons is striking. The Harvard graduates, treated by two independent methods, show positive correlation between success and number of children, indicating at least survival of exceptional ability, if not evolution. This conifcation of wealth, social position and worldly success is a biological phenomenon and makes civilization possible, while the record of the formation and breaking up of such structures constitutes history.—*H. A. Toops* (Ohio State).

[See also abstract 752.]

SPECIAL MENTAL CONDITIONS

661. Besterman, T. **Library catalogue (supplement 1927-1928).** *Proc. Soc. Psych. Res. (Eng.)*, 1928, 38, 103-207.—"The present first supplementary catalogue describes the books, etc., acquired (principally out of the Carnegie grant) during July, 1927-June, 1928, together with a good many items omitted . . . from the general catalogue published in December, 1927." The preface also announces the arrangement of books in the library.—*W. S. Taylor* (Smith).

662. Binswanger, L. **Wandlungen in der Auffassung und Deutung des Traumes. Von den Griechen bis zur Gegenwart.** (Changes in the concept and interpretation of the dream. From the Greeks to

the present.) Berlin: Springer, 1928. Pp. 128.—This pamphlet, which is based on four lectures, treats of three epochs in which interest in dreams reached a climax: the Greeks, Romanticism, and modern psychoanalysis. The author tries to trace the sources from which interest in dreams arose. This can be done very clearly, especially in Romanticism. Psychoanalytic dream analysis can be furthered by a knowledge of the romantic interest in dreams. The bibliography contains references that were not used by Freud in his classical book *The Interpretation of Dreams*.—L. Binswanger (Kreuzlingen).

663. Blondel, C. *The troubled conscience*. London: Kegan Paul, 1928.—W. S. Hunter (Clark).

664. Bryan, D. *Notes on cases of fugue*. *Brit. J. Med. Psychol.*, 1928, 8, 207-211.—Four case histories, only the fourth being complete or analyzed. This case has been reported in four articles in *Int. J. Psychoanal.*, 1925, 1926, 1928.—R. R. Willoughby (Clark).

665. Burrow, T. *The basis of group-analysis, or the analysis of the reactions of normal and neurotic individuals*. *Brit. J. Med. Psychol.*, 1928, 8, 198-206.—Analytic experience leads to a differentiation in the reactions of an individual between components activated by the genuine ego and components which have suffered deformation through criticism in the light of built-up social images. Group analysis is analysis of these images and of their influence upon reactions; such a group is a miniature society, in which characteristic social behavior of the individual may be immediately analyzed in the situation in which it occurs, i.e., set against its genetic background and compared with similar behavior and backgrounds of other individuals. This approach promises new understanding of the relations between physician and patient, between the normal and neurotic, and between individuals in social conflict (e.g., crime, industrial relations).—R. R. Willoughby (Clark).

666. Buttersack, —. *Tiefenpsychologie und Ärztschaft*. (Depth psychology and the art of the physician.) *Psychol. u. Med.*, 1927, 2, 191-197.—The very word "individual" implies a functional system from which nothing can be taken away without changing the character of the whole. Our usual therapeutic measures are based on a tacit, unconscious assumption of the isolation of all things. Preoccupied with a physico-chemical view of life, most physicians pronounce hopeless a condition that can not be operated or treated locally, such as high blood pressure, arterio-sclerosis, etc. In thus destroying the patient's hope, they weaken his will and lower his resistance. Even in incurable cases, it is worth while to strengthen the will and increase the enjoyment of life. Victorious armies recover more quickly from wounds and diseases than do the vanquished. Bodily health reflects the emotional condition of the patient, and is greatly influenced by climate, scenery, family life, hopes and ambitions, and the attitudes of society. It is time physicians gave more heed to the psyche.—M. F. Martin (W. Springfield, Mass.).

667. Clemen, C. *Die Anwendung der Psychoanalyse auf Mythologie und Religionsgeschichte*. (The application of psychoanalysis to mythology and the history of religion.) *Arch. f. d. ges. Psychol.*, 1928, 61, 1-128.—A detailed and elaborately documented critique of the psychoanalytic interpretations of the Oedipus legend, totem and tabu, the puberty-rites, the *couvade*, etc. Clemen holds that not only are these interpretations unverified and improbable, but in all cases a more plausible theory is at hand. With the exception of the hero-legends and the tabus, all aspects of primitive religion which Freud and his pupils have studied have been interpreted by them in terms of the Oedipus complex. The weakness of this interpretation was to be anticipated from the fact that the reality of the Oedipus complex itself has never been satisfactorily demonstrated. Not only may we conclude that psychoanalysis has little or nothing to offer the science of comparative religion, but with this signal failure in mind we may well question the validity of the psychoanalytic theory in other domains.—D. McL. Purdy (California).

668. Conroy, E. *The symbolism of light and colour*. Philadelphia: McKay, 1928. Pp. 66. \$1.50.—By means of quotations from phrenologists, astrologists, poets, ancient writings, etc., the author shows the symbolic significance of the various spectral colors, and of black, white, and brown.—R. G. Sherwood (Stillwater, Minn.).

669. Crombie, M. *How to judge character*. Philadelphia: McKay, 1928. Pp. 92. \$0.50.—W. S. Hunter (Clark).

670. Deutsch, H. *Ein Frauenschicksal*. (A woman's fate.) *Imago*, 1928, 14, 334-357.—Using evidence from her life and writings, Deutsch attempts to show that George Sand's masculinity was the product of an unsuccessful struggle to attain feminine satisfaction. Her identification with her father was intensified by her grandmother's wish. With weak, boyish men she had a mother-child relationship. When they disappointed her, she was cruel to them. Her feminine attitude was expressed in her religion and her novels.—C. Moxon (San Francisco).

671. Deutsch, H. *Zur Genese der Platzangst*. (The genesis of agoraphobia.) *Int. Zsch. f. Psychoanal.*, 1928, 14, 297-314.—In the analysis of Case I (a girl of twenty) the pre-Oedipal mother-child attachment of early infancy had to be broken by means of the mother transference. The anxiety corresponded to the danger of losing the loved mother, and also served as a warning signal of her own sadistic tendency towards her hated mother. The hysterical symptom later took a compulsive form. The second case showed a similar ambivalent mother attachment, with a daughter as the mother substitute, whose presence was needed on the street in order that the mother might be free from anxiety. As a small child this patient had a traumatic loss of her beloved mother, so that the anxiety signal of her agoraphobia was the old cry for the mother. During the analysis she had typical tonic-clonic hysterical attacks, which were a means of relieving her rage

against the analytic mother substitute. A characteristic feature of agoraphobia is this identification with the object of hostile tendencies, conditioned in the Oedipus constellation. The birth fantasy in an active and passive sense was of central importance in these cases. They all showed strong masochistic and exhibitionistic tendencies.—*C. Moxon* (San Francisco).

672. Dupréel, E. *Le problème sociologique de rire*. (The sociological problem of laughter.) *Rev. phil.*, 1928, 106, 213-260.—The article opens with an historical review of the theories of laughter. The author finds two non-sociological types of theories, the philosophical, dealing with the nature of the object, and the psychological, dealing with the nature of the reaction. He is interested, however, in the sociological point of view, as the other points of view do not tell the nature of laughter itself. Bergson and Sully made an attempt in this direction. According to Dupréel, laughter has developed in society and is found in the relations of greeting and exclusion bound up with the life of the group. These two forms explain the double character of the complete laugh, namely, joy and malignity. It is the social life that prepares in each one of us a sort of mechanism ready to go off at the hazard of thousands of possible incidents.—*T. M. Abel* (Illinois).

673. Fenichel, O. *Some infantile sexual theories not hitherto described*. *Int. J. Psychoanal.*, 1928, 9, 346-352.—Among the causes for the frequent affective refusal by the child of sexual enlightenment, castration anxiety stands in the foreground. The new material connects with this the fantasy of intrauterine castration and transformation of sex. This fantasy was a condensation of all the Oedipus wishes. It was not necessary to assume that there was an expression of any supposititious pre-Oedipal birth-anxiety.—*C. Moxon* (San Francisco).

674. Ferenczi, S. *Gulliver phantasies*. *Int. J. Psychoanal.*, 1928, 9, 283-300.—See II: 1,526.—*C. Moxon* (San Francisco).

675. Fetscher, R. *Zur Frage der Altersdifferenz der Gatten*. (The question of the age difference of spouses.) *Zsch. f. Sex.-wiss. u. Sex.-pol.*, 1928, 15, 103-108.—A study of the statistics of the ages of spouses, found in the Statistical Year Book for Germany, 1926. Marriages in which the woman is not over 2.2 years older than the man, and the man is not more than 8.7 years older than the woman, are, at present, to be regarded as "normal" marriages. 3 tables.—*W. Berry* (Rochester).

676. Freud, S. *Fragment d'une analyse d'hysterie*. (Fragment of an analysis of a case of hysteria). *Rev. fr. de psychanal.*, 1928, 2, 1-112.—For an English translation, see *Collected Papers*, Vol. III, 1925, pp. 13-146.—*I. H. Coriat* (Boston).

677. Gillespie, R. D. *Contributions of psychological medicine to the estimation of character and temperament*. *Brit. J. Med. Psychol.*, 1928, 8, 165-185.—The author suggests "idiosyncrasy" as a substitute for "personality." In his judgment neither immediate clinical observation, a general factor for emotionality, nor instrumental methods can be in-

voked to secure helpful conceptions of character make-up, but chief reliance is to be placed on the biographic method, applied genetically and dynamically; the manner of integration of traits is important, and hereditary factors must not be forgotten. Prognosis is dependent on preexisting idiosyncrasy, though the possibility of changes in the latter must be taken into account. Bibliography of 21 items.—*R. R. Willoughby* (Clark).

678. Glover, E. *The technique of psychoanalysis*. London: Bailliere, 1928.—*W. S. Hunter* (Clark).

679. Goitein, P. L. *The rôle of organ inferiority in constellating a castration complex*. *Brit. J. Med. Psychol.*, 1928, 8, 194-197.—The patient, an incipient psychotic, maintained as part of a delusional content that he had an appendix on the left side. That organ had in reality been removed at the age of nine; the operation had had for him the significance of castration as a punishment for masturbation, and the surgeon represented his father. From the familial incidence of inadequacy of the appendix, the author believes that a real congenital inferiority existed, and was utilized as the basis of the castration complex.—*R. R. Willoughby* (Clark).

680. Heyer, G. R. *Hypnose und Notzucht*. (Hypnosis and rape.) *Zsch. f. Sex.-wiss. u. Sex.-pol.*, 1928, 15, 1-8.—The question whether or not an operator could rape a woman in hypnosis, who in waking state would not permit it, is discussed by the author. Starting with an analysis of the nature of the hypnotic condition, he asserts that the results of suggestion and suggestibility (*Sich-Suggieren-Lassen*) reveal in general two basic tendencies. One is described as the drive to usurp, to take possession, to dominate or master. The other is the drive to succumb, to accept, etc. In hypnosis the medium always knows "inside" what is going on, the question always is whether the reaction to the event is "yes" or "no." Only in deep hypnosis (*Somnambulhypnose*) can the use of force (*Gewaltanwendung*) succeed. Sex abuse (rape) is possible only in such deep hypnosis, when unconscious repressed impulses in the subject reciprocate the demands or wishes of the operator, and when ethical limitations fail. Hypnosis as condition of lowered resistance but heightened sexual desire (the desire or drive to succumb) enhances the peril of such reciprocity between the subject and the operator. The subject should be protected as far as possible from the unscrupulous use of this possibility.—*W. Berry* (Rochester).

681. Hitschmann, E. *Von, um und über Hamsun*. (From, around and about Hamsun.) *Imago*, 1928, 14, 358-363.—Further material from and about Hamsun, showing the after-effects of his oral castration complex in his novels.—*C. Moxon* (San Francisco).

682. Horney, K. *The problem of the monogamous ideal*. *Int. J. Psychoanal.*, 1928, 9, 318-331. See II: 1534.—*C. Moxon* (San Francisco).

683. Howey, M. O. *The encircled serpent*. Philadelphia: McKay, 1928. Pp xi + 411. \$7.50.—The author has accumulated in this volume a large

amount of descriptive material on the symbolism of the serpent in human thought and culture. The serpent symbol in both its conscious superficial and its deeper unconscious aspect is very widespread and comprehensive and has interpenetrated not only all classes of civilization, from the primitive to the most complex, but likewise has played an important part in the unconscious thinking of individuals. The serpent thus becomes the allegory of an almost endless series of objects of thought into which it winds in a very intricate manner. The various aspects of this serpent symbolism are discussed in detail in this volume, each chapter being limited to one particular type of symbolism, with many references in the text. A few of the subjects discussed are the serpent gods of Egypt, the serpents of Siva, the caduceus, the serpent in medicine and heraldry, various classical and mythological aspects of the serpent symbolism, the meaning of the serpent in various religions, the general subject of primitive ophiolatry, the basilisk, the lamiae, and the serpent as a phallic emblem. Colored frontispiece, many illustrations and plates in the text, a bibliography at the close of each chapter and an index.—*I. H. Coriat* (Boston).

684. Janet, P. *Les béatitudes. II.* (Ecstasies. II.) *Rev. phil.*, 1928, 106, 106-148.—In the normal individual thinking is never entirely divorced from action. In abnormal conditions, however, particularly in introversion, thought is abused at the expense of action. In the ecstasies, a special form of introversion, thought becomes mere play; it is the exploitation of easy triumphs through the reduction of action. Janet refers to his theory of psychic energy in explaining the cause of the ecstatic state. Ecstatic crises come about through a weakening of this energy. The ecstasy has two main characteristics. In the first place, there is arrest of primary action by a reaction of complete success; everything is beautiful, there are no troubles, no worries. Secondly, there is a waste of energy mobilized for the primary action and freed by its arrest. All ecstasies seem to have a great quantity of apparent energy at their disposal. In an ecstasy the individual has enough psychic energy to enjoy phantasy. In certain cases, the ecstasy may be a defense, a saving up of energy to be used later.—*T. M. Abel* (Illinois).

685. Jelgersma, H. C. *Der Kannibalismus und seine Verdrängung im alten Ägypten.* (Cannibalism and its repression in ancient Egypt.) *Imago*, 1928, 14, 275-292.—The Pyramid texts show at least that the Egyptians of that time had cannibalistic wishes, which, by the time the Book of the Dead was written, had been repressed. The Egyptian practice of mummification was not primitive, but rather a later reaction formation to the primitive custom of cannibalism. The hiding of the dead is also a safeguard against hostility to the dead. The latter is connected with incestuous tendencies. The dismemberment of Osiris is considered in this connection.—*C. Moxon* (San Francisco).

686. Jung, C. G. *Two essays on analytical psychology.* The unconscious in the normal and pathological mind. The relation of the ego to the un-

conscious. (Trans. H. G. Baynes & C. F. Baynes.) London: Bailliere, 1928. Pp. 298.—*W. S. Hunter* (Clark).

687. Jung, C. G. *Contributions to analytical psychology.* (Trans. by H. G. and C. F. Baynes.) New York: Harcourt, Brace, 1928. Pp. xi + 410. \$5.50.—Only the leading paper, *On Psychical Energy*, is new. In it the author presents the metaphysical foundations of the libido theory, and discusses in connection with it the possibility of measurement through the value system of the individual and by various more technical methods, the concepts of regression and progression, transformation and symbol-making, entropy in the psychical system, conservation of energy, and certain primitive practices evidently serving to invest unusual objects with the libido necessary for their effective use. The remaining papers are *Spirit and Life* (1926), *Mind and the Earth* (1927), *Analytical Psychology and Weltanschauung* (1927), *Woman in Europe* (1927), *Marriage as a Psychological Relationship* (1925), *The Love-Problem of the Student* (1924), *On the Relationship of Analytical Psychology to Poetic Art* (1922), *The Psychological Foundations of Belief in Spirits* (1919), *Instinct and the Unconscious* (1919), *The Question of the Therapeutic Value of "Abreaction"* (1921), *Psychological Types* (1923), *Analytical Psychology and Education* (1923-1924), *The Significance of the Unconscious in Individual Education* (1925).—*R. R. Willoughby* (Clark).

688. Klinckowstroem, C. *Der okkultische Komplex. Parallelen aus alterer und neuerer Zeit.* (The occult complex. Parallels between ancient and modern times.) *Psychol. u. Med.*, 1927, 2, 303-315.—The author gives numerous historical and modern instances showing the determination of occultists to seek an occult explanation for many phenomena for which a natural explanation can just as easily be found. Modern spiritualists, like those of former times, resent and resist critical studies of mediumistic phenomena.—*M. F. Martin* (West Springfield, Mass.).

689. Klinckowstroem, C. *Parallelen vom alten und neueren Okkultismus. Okkultistische Polemik.* (Parallels between the old and new occultism. The polemics of the occult.) *Psychol. u. Med.*, 1928, 3, 54-64.—The "mentality" of occultism has remained the same for centuries. It is an eagerness to believe, an unwillingness to distinguish between the particular facts under investigation and the complex of beliefs. The literature of modern occultism is full of polemics against the unbelieving. Investigators who have exposed fraudulent practices of particular mediums have been bitterly attacked by spiritualists who did not wish their beliefs disturbed. Historical and modern instances are cited. Much of the article is devoted to a discussion of the motives, methods, and fallacies of intellectual controversy in general, with illustrations from the history of religious, philosophical, and literary controversies.—*M. F. Martin* (West Springfield, Mass.).

690. Krudewig, M. *Die Persönlichkeit im Ansatz einer theoretischen Psychologie.* (Personality in

the foundation of a theoretical psychology.) *Arch. f. d. ges. Psychol.*, 1928, 61, 445-499.—The author makes a thoroughgoing inquiry into the nature of personality, taking into account a great deal of German psychological and philosophical literature, with the purpose of determining the rôle of the concept of personality within a theoretical psychology (in Lindworsky's sense). She concludes that a theoretical psychology without an ego cannot be an adequate representation of psychical reality. The ego is not an inactive subject which merely "has" consciousness; it is an active participant. It is this participation of the ego in the conscious processes which causes the apparently irreducible complication of mental life. On this account *individual* processes cannot be predicted in psychology as they are in the natural sciences; one can predict only general tendencies. An analysis of the particular types of self-consciousness shows that no unique elementary experience is involved; the conception of personality has nothing to do with the problem of the mental elements. The author examines the notion of personality as the substrate of a structured dispositional unity, and concludes that theoretical psychology does not require this notion, the concept of the ego being sufficient. This view of personality, however, includes many ideas which are important for theoretical psychology. It suggests new problems for this science, e.g., the problem of determining general laws for the co-action of complex mental processes. 24 references.—D. McL. Purdy (California).

691. Lampl de Groot, A. The evolution of the Oedipus complex in women. *Int. J. Psychoanal.*, 1928, 9, 332-345.—See II: 133.—C. Moxon (San Francisco).

692. Laslett, H. R. Experiments on the effects of the loss of sleep. *J. Exper. Psychol.*, 1928, 11, 370-396.—Subjects were examined after a 40% reduction of the customary sleep ration and after 72-hour sleep deprivation with a group of tests consisting of blood pressure, Johnson-Paschal code, addition, Miles pursuit-meter, pursuit pendulum, Miles ataximeter, Thorndike Intelligence Examination Part I. The effects of the reduction were not pronounced, with apparently complete recovery after 2 or 3 hours of extra sleep. Greater losses are seen in consequence of the 72-hour deprivation. An individual's normal amount of sleep cannot be curtailed or eliminated without loss of efficiency. It is possible that sleep seizures come in cycles similar to those of hunger.—S. Renshaw (Ohio State).

693. Loewenstein, R. La technique psychanalytique. (The technique of psychoanalysis.) *Rev. fr. de psychanal.*, 1928, 2, 112-134.—Four lectures on the general conceptions of psychoanalytical technique, in which the fundamental and most definitely established procedures are outlined. The subjects discussed are the historical development of the technique, the fundamental rule, resistance and transference.—I. H. Coriat (Boston).

694. Löwitsch, F. Raumempfinden und moderne Baukunst. (Space perception and modern architecture.) *Imago*, 1928, 14, 293-321.—There are an un-

limited number of factors in the idea of space—conscious and repressed individual experiences, prenatal and inherited engrams. First there is the Riemann's space of the cell. The intra-uterine experience and the swaddling clothes of babyhood determine the perception of space as a cavity. Next the perception of one's own body and other things into which the earlier cavity world is broken up. Finally the child's interest in growing powers of movement leads to the feeling of "energetic space," not for circumscribed things, but for the effect, quality, energy of things, of space. In the prenatal state there is a kind of naïve bliss; displeasure is first aroused by the process of birth. This greatest of all changes of state rouses a longing for the lost condition. The displeasure at one's own bodily existence without maternal support is balanced by pleasure in movement, opposed to all cavities which limit activity. Hence the ambivalent attitude to the woman's genital. Corresponding to ontogenetic and phylogenetic development, there are four separable groups of spatial experiences, the space of the cell, of the cavity, of the thing, and of energy. The incomplete severance from earlier phases accounts for the fixation at, or regression to, the spatial experience proper to them. In relation to the theories of Rank, Spengler and von Sydow, the architecture of various times is examined. In early Christian, the feeling of concavity predominates. In order to explain the styles one must allow for the progressive as well as the regressive factor; the modern tendency is to destroy mother symbols. Elevators and pipes in our skyscrapers express the desire for movement even within the walls.—C. Moxon (San Francisco).

695. Marcuse, M. Die Wechseljahre des Mannes. (The male climacteric.) *Zsch. f. Sex.-wiss. u. Sex.-pol.*, 1928, 15, 132-137.—A review of the recent German literature on the climacteric of man.—W. Berry (Rochester).

696. Moll, A. Nötigung zur Unzucht durch Hypnose. (Compulsion to unchastity through hypnosis.) *Zsch. f. Sex.-wiss. u. Sex.-pol.*, 1928, 15, 103-106.—Moll discusses the interpretation of "compulsion" and "force" in legal definitions. Commentators are not in agreement on the question whether or not "force" in the legal sense can signify other than physical force. The author advocates the recognition of hypnosis along with physical force in "compulsion."—W. Berry (Rochester).

697. Montmasson, J. M. Le rôle de l'inconscient dans l'invention scientifique. (The rôle of the unconscious in scientific invention.) Paris: Alcan, 1928. Pp. 416. 35 fr.—The fundamental idea in a great number of inventions has not been the logical outcome of lengthy syllogisms, but it has been abruptly revealed to the mind of the searcher after a long period of unconscious incubation. The author, in a number of cases, tries to find the limits between what is conscious and what is not. Now if the unconscious is negative, it is the absence of the conscious. Therefore its study should be preceded by an analysis and definition of the conscious. According to the author, consciousness is an immediate

awareness, spontaneous or reflective, of states and internal phenomena of the spirit only. It is sensation which is the necessary intermediary between consciousness and the external world. This sensitivity is reinforced by attention, thanks to which we are able to go from consciousness to the unconscious. In the first part the author investigates the rôle of the unconscious in scientific invention and in awareness in general (the unconscious in sensation, feeling, perception, memory, imagination, judgment, reasoning, in our opinions and our beliefs). Then he studies the unconscious in mathematical inventions, in the physical, natural, and moral sciences, and the unconscious and invention in technology. The second part is given over to the genesis of invention under the influence of the unconscious (the theory of integral awareness, the rôle and inadequacy of the automatic unconscious, the necessity for a dynamic unconscious in invention, the rôle of the esthetic unconscious in invention). The unconscious, says the author, is chiefly automatic in the preparation of an invention; it is chiefly dynamic in its conception; and it needs to be both dynamic and esthetic in the development and in the modification of the invention. And, finally, in the verification of the invention, the unconscious must be at the same time automatic, since it records new acquisitions; dynamic, since it arouses new experiences; and esthetic, since it orients the whole of the proceedings of control towards a general conclusion. A bibliography of about 150 works concludes the study.—*Math. H. Piéron* (Sorbonne).

698. Müller-Freienfels, R. *Zur Psychologie der erotischen Selektion.* (The psychology of love selection.) *Zsch. f. Sex.-wiss. u. Sex.-pol.*, 1928, 15, 81-103.—The problem of this investigation is the question of whether the choice of the love partner is due to the capricious aim of the god of love, as is so often represented in art and literature, or whether it is due to some law or principle of selection. Three groups of facts are distinguished: (1) biological-physiological; this group of facts includes the sex drive as an animal potency, etc.; (2) psychological-esthetic; the sex partner may be regarded not merely as an animal capable of begetting but rather as an individual whose worth lies in a total complex in which the sexual is one component; (3) sociological; the object of the choice may be seen not merely as begetter, not merely as an individual, but also as a member of a social group. The author discusses such topics as the psychology of erotic consciousness, the genesis of the formation of esthetic concepts and ideals, social limitations of selection, the individualizing of erotic ideals. In conclusion he points out that what is meant by the term "love" is a highly complex relation not to be based on sex alone. Sex drive is not love. Rather, love is a relation of the entire personality. In the higher forms of development love is not a "nature" fact, but a "culture" fact (*Kulturtatsache*). Eugenics as a science must therefore keep in view not only biological, but also psychological and sociological facts.—*W. Berry* (Rochester).

699. Nathan, M. *L'idée de laideur.* (The idea of ugliness.) *Encéph.*, 1928, 23, 748-755.—The idea of ugliness ought always to be considered as secondary to another obsession to which it offers a warrant of irresponsibility. A feeling of inferiority must always be looked for, produced oftenest by education and rarely by fortuitous circumstances.—*Math. H. Piéron* (Sorbonne).

700. Oesterreich, T. K. *Die Probleme der Einheit und der Spaltung des Ich.* (The problems of the unity and splitting of the self.) Stuttgart: Kohlhammer, 1928. Pp. viii + 39. M. 2.20.—This booklet is based on two lectures delivered at the 8th International Congress of Psychologists (Groningen) and the III. Congrès Intern. des Recherches Psychiques (Paris). It attempts to enlarge the psychological theory of personality and its phenomena of splitting. Its point of view is monadological in contrast to the associationistic-synthetic theory of the self so common in the last decades. The phenomena of splitting are considered from many points of view. Their significance is discussed in relation to psychophysics, parapsychology, philosophy of religion, metaphysics and logic. It is found that they are of great interest from all these points of view, especially in the present state of the problems. Finally the question is raised of a revision and partial restriction of the monadological theory.—*T. K. Oesterreich* (Tübingen).

701. Pfister, O. *Die Illusion einer Zukunft.* (The illusion of a future.) *Imago*, 1928, 14, 149-184.—A criticism of Freud's book *The Future of an Illusion*. Freud's criticism of religion as a neurotic compulsion and a hallucinatory confusion of mind is largely, but not entirely true. Jesus, for example, is an exception. If religion is a wish formation, so is science. There is probably an illusion in Freud's picture of a future without religion, and in his trust in the all-sufficiency of science.—*C. Moxon* (San Francisco).

702. Prince, W. F. *Noted witnesses for psychic research.* Boston: Boston Society for Psychic Research, 1928. Pp. 336. \$3.50.—This book was compiled by the research officer of the Boston Society for Psychic Research, and contains an introduction in which the term "research" is emphasized; then follow experiences of well known people, from Martin Luther to Hudson Maxim, to mention two extremes. The book also contains indexes of names and of phenomena.—*J. C. Spence* (Clark).

703. Rado, S. *The psychical effects of intoxication: attempt at a psycho-analytical theory of drug-addiction.* *Int. J. Psychoanal.*, 1928, 9, 301-317.—Analgesic drugs provide what the mental organization lacks—an internal barrier against painful stimuli. In cases with organic pain, injection of morphine caused phantasies in which the serious condition was projected by the patients on to persons in their environment. Stimulants remove painful tensions and act as a tonic to the ego in its attempt to please its two masters, the id and the conscience. Intoxicants have an orgasmic effect on the whole organism. This erotic gratification may replace the genital orgasm, undermine genital po-

teney and rapidly lead to a turning away from real love objects. But in course of time a pharmacotoxic impotence to obtain a discharge of the psychosexual tension will occur. In severe cases of addiction the ego is completely devastated by the libido of the id; the outer world is ignored, the conscience disintegrated. Addicts show strongly marked oral erotism, even when the drug is not taken orally. At the suckling stage there is an alimentary orgasm following a full meal, and this is the fixation point which produces a disposition to drug-addiction. The pharmacotoxic orgasm is thus a new version of the alimentary one. Rado adds some phylogenetic speculations and a note on melancholia.—*C. Moxon* (San Francisco).

704. Rank, O. *Gestaltung und Ausdruck der Persönlichkeit. II. Teil der "Grundzüge einer Genetischen Psychologie."* (Formation and expression of personality. Part II of *Elements of Genetic Psychology*.) Leipzig & Vienna: Franz Deuticke, 1928. M. 5.—Contents: introduction (beyond psychoanalysis); character and self; love and projection; adaptation and activity; education and government; feeling and sacrifice; suffering and help. The work published under the foregoing title, which appears as the synthetic and constructive part of *Genetic Psychology*, was first given as a course of lectures at the Pennsylvania School for Social and Health Work in Philadelphia in the winter of 1927. It attempts to give a clearer formulation of the conflict between biological and ethical views of life and marks a new step in the connecting path which the author is making from biology through psychology to philosophy—philosophy in the sense of the real theories of the mind: namely the relation of the individual to others in ethics and the relation of the individual to reality in epistemology. The constructive psychology which the author attempts to outline here presents an evaluation of that which is purely mental in this sense. In it the biological and social factors are really considered in their rôle as materials in the mental life and not as motive forces in it.—*O. Rank* (Paris).

705. Reik, T. *Bemerkungen zu Freud's Zukunft einer Illusion.* (Remarks on Freud's *The Future of an Illusion*.) *Imago*, 1928, 14, 185-198.—The most valuable part is the introduction, giving a comprehensive psychological picture of the conditions upon which culture depends. The main part of the book contains nothing that is not to be found in Freud's earlier writings. The book will be powerless against the superficial intellectual agreement which so often shields an affective resistance to drawing the painful sequences by honest thinking. Reik doubts whether man can live without an illusion. The inner compulsion in place of the outer may be a development, but not necessarily a progressive one, since the ego ideal is extremely cruel.—*C. Moxon* (San Francisco).

706. Richter, P. *Das Stottern und seine Heilung durch hypnotische Suggestion.* (Stuttering and its cure by hypnotic suggestion.) Dresden: Rudolph, 1928.—Stuttering is a psychic malady and on that account lends itself definitely to treatment by sug-

gestion. Suggestion in hypnosis is recommended by the author; he gives directions which promise success. The strengthening of will power and self-confidence and the profound psychic influences associated therewith are effective weapons against the tormenting evil. Stutterers suffer from the compulsive idea that they are not equal to certain demands of speech. Richter's method consists in saying before the stutterer, who has been placed in hypnotic sleep, simple words and later simple sentences, and then having him repeat them. These must be repeated slowly until the patient speaks after the operator without errors, i.e., without pressing or pushing vowels or consonants. Certain syllables are repeated continuously until the stutterer finally speaks freely. The simple suggestion, "now you do not have to stutter any more," is not sufficient, but the foregoing practice must be used as a basis. The routine must be gone through with carefully and conscientiously, as in the case of a child who is beginning to read. Hypnotic suggestion alone can help the stutterer.—*P. Richter* (Berlin).

707. Rickmann, J. *The development of the psycho-analytical theory of the psychoses, 1893-1926.* London: Bailliere, 1928. 6s.—Supplement number two to the *International Journal of Psychoanalysis*.—*W. S. Hunter* (Clark).

708. Stekel, W. *Die Krise in der Psychoanalyse.* (The crisis in psychoanalysis.) *Psychol. u. Med.*, 1928, 3, 40-45.—The author contends that psychoanalysis is not a medical science, but is more like a dogmatic religion, because it is controlled by strict laws of its founder, whereas real science is critical and progressive. He compares the positive results of psychoanalysis to similar cures by Christian Science, hypnotism, Couéism, and other methods. The failures of psychoanalysts, he says, "cry to Heaven." He condemns the immense sacrifice of time and money in analyses which have been carried on for several years with no beneficial results to the patient, and he calls attention to the dangers of psychoanalysis by persons with no general medical training as a background, except when these analysts can be under constant supervision by a physician. Admitting the genius of Freud and the reality of some of his contributions, the author nevertheless feels that the "old structure" must be torn down, before a scientific psychoanalysis can be built up.—*M. F. Martin* (West Springfield, Mass.).

709. Sterba, R. *Bemerkungen zum dichterischen Ausdruck des modernen Naturgefühls.* (Remarks on the poetic expression of the modern feeling for nature.) *Imago*, 1928, 14, 322-333.—By poets (e.g., Goethe) natural events or states are often described in terms of human movement as active. The pleasure in nature depends on the extension of the ego limits by identification with the objects. The resulting "cosmic motility" is produced by regression to the phase of the magical omnipotence of thought.—*C. Moxon* (San Francisco).

710. Sussmann, R. *Über das Nichtsehenwollen.* (Concerning the wish not to see.) *Psychol. u. Med.*, 1927, 2, 295-303.—Unwillingness to see may result from many causes, the commonest being fear of reality

and feelings of guilt, especially sexual guilt. Unwillingness to see is manifested in many ways, (1) by tearing out the eyeballs, (2) by mutilating the eyes with glass, pepper, etc., (3) by hysterical blindness, which is a symbolic expression of flight from reality, (4) by hysterical shrinkage of the field of vision, (5) by cramps of the eyelids, which make it difficult to open the eyes, (6) by nervous fear of light, (7) by compulsive gestures (turning away the head, etc.), (8) by daydreaming (keeping attention away from the visible world), (9) by restless overactivity, which may be a symptom of the desire to avoid seeing something, and (10) by preoccupation, like that of scholars, artists, and religious mystics.—*M. F. Martin* (West Springfield, Mass.).

711. *Vierkandt, A. Neue Anschauungen über das Wesen der Suggestion.* (New views of the nature of suggestion.) *Psychol. u. Med.*, 1928, 3, 36-39.—The popular idea of suggestion rests on two false assumptions, (1) that man's normal behavior is rational, and (2) that human beings are independent units, making independent judgments and decisions. When anyone does something irrational, this is thought to require a special explanation. Verbal suggestion is thought to consist in a sort of crippling of mental life. Actually, human beings are not isolated, rational creatures. Verbal influence is natural and universal, not abnormal. From childhood on, the human being accepts without resistance the views of those around him. The child is unconditionally credulous. Only by experience does he learn to be critical. Even the adult is critical only in limited measure. The critical scholar may display extreme naiveté in politics. Credulity is inborn. Education is unthinkable without it. An equally blind aversion is also inborn. The distinction between the person and the thing is a secondary development, and never quite complete. We accept beliefs of a person we trust and think we are judging independently on rational grounds. Hypnotic suggestion is an unusually close association between persons, which increases the strength of the verbal suggestion. The author suggests abandoning the use of the term "suggestion," with its traditional implications, and substituting the term "influence."—*M. F. Martin* (West Springfield, Mass.).

712. *Wexberg, E. Individualpsychologie. Eine systematische Darstellung.* (Individual psychology. A systematic presentation.) Leipzig: Hirzel, 1928.—Among the psychological tendencies of our times the school of individual psychology, founded by Alfred Adler, is assuming a more and more important rôle. Like psychoanalysis it begins with a study of abnormal mental life, and what it finds in a psychology of the neuroses it applies to the structure and development of the normal mind. It differs from psychoanalysis and other more mechanistically inclined schools by the use of the principle of totality, which it has followed down to its last inferences and by which it means the inherent teleology of the mind. Its problem is not the Why but the Wherefore of the mental attitude. It thus aims to furnish an understanding of the mind, that is, a knowledge of man as it is possessed by great

poets and which is now put into a scientific, and therefore teachable, form. The present book undertakes to present systematically what has been built up during the last twenty years by Alfred Adler and his pupils, and it thereby hopes to facilitate the first approach to a discipline which is of such theoretical and practical importance for psychologists, physicians, and educators.—*E. Wexberg* (Berlin).

713. *White, W. A. Definition by tendency.* *Psychoanal. Rev.*, 1928, 15, 373-383.—A review of the progress and prospects of the psychoanalytic movement.—*R. R. Willoughby* (Clark).

714. *Winterstein, A. Die Pubertätsriten der Mädchen und ihre Spuren im Märchen.* (Girls' puberty rites and their traces in fairy tales.) *Imago*, 1928, 14, 199-274.—Examples are given of rites and fairy tales from different parts of the world. One purpose of the exile is to keep the daughter from the father. Yet defloration is often done by father figures, and for the unconscious is but the repetition of the fantasied love act with the father. Discussion follows of the dangerous bride, the poisonous snake in the virgin's womb, and the connection between tooth and penis. The girl is placed in situations that symbolize the womb (cage, isolated dark hut, hole in the earth, etc.) The exile is a compromise between the jealous tendencies of both parents. She may neither see father (sun) nor touch mother (earth). The rites are somewhat in the nature of a return to the intra-uterine situation. The tests of courage (e.g., springing over hedges and thrusting the head into a thorny collar) symbolize the tendency to overcome the birth trauma, to separate from the mother, and to identify with the man. These rites serve to substitute feminine sexuality for the incomplete masculine, to remove socially purposeless fixations, and to prepare for sex, marriage, and motherhood. The separation of a part from the whole represents birth as well as symbolizing sex. The rites are compared and contrasted with the analytic technic of re-education.—*C. Moxon* (San Francisco).

[See also abstracts 576, 731, 818, 841, 843, 952, 968, 975, 988.]

NERVOUS AND MENTAL DISORDERS

715. *Abely, X., & Dupont, —. Un cas de surdit  hyst rique datant de 28 ans.* (A case of hysterical deafness dating back 28 years.) *Ann. m d.-psychol.*, 1928, 86, 227-236.—To avoid hearing the taunts of her parents because of the birth of an illegitimate child, the patient developed a case of total deafness. Complete isolation from her relatives, who had severed all connections with her, failed to clear up the situation. Even though she desired her freedom, and knew the reason for her detainment at the hospital, she persisted in her deafness. Physical examination, however, demonstrated the impossibility of an organic disturbance. The psychiatrists in charge of the case believe that the disease is really "an irremediable trouble of the attention," thus offering a psychological explanation. All attempts to cure the patient have failed.—*P. A. Pooler* (Boston, Mass.).

716. Bates, S. Practical problems of the defective delinquent. *Proc. & Addr. Amer. Asso. Stud. Feeble-Mind.*, 1928, 33, 110-114.—Massachusetts for the past 6 years has been segregating her defective delinquents in institutions apart from those for the feeble-minded or insane. During this period 337 males and 86 females were committed; 141 males and 8 females were discharged; while 27 males and 1 female were returned from parole and recommitted. This type of institution should be under the supervision of the department of mental disease, rather than under the state department of correction and penology. Commitments should never be made until the age of 17 because of the present uncertainty of mental diagnosis. Dismissals should be granted between the ages of 30 and 50. Parole before this age may be used under properly guarded parole systems.—M. W. Kuenzel (Vineland Training School).

717. Benon, R. *Mélancolie et asthénie-manie alterne.* (Melancholia and alternate asthenia-mania.) *Ann. méd.-psychol.*, 1928, 86, 245-252.—"True melancholia, simple or delirious, is, in part, a psychopathic affection, which can appear at all ages, but which is most common between forty-five and sixty. It should not be classed with manic-depressive psychoses. The error committed by Kraepelin is explained, in part, by the fact that an attack of ordinary melancholia is apt to be accompanied by intermittent insanity."—P. A. Pooler (Boston, Mass.).

718. Brown, S., 2nd. A psychiatric view of crime and the criminal. *Proc. & Addr. Amer. Asso. Stud. Feeble-Mind.*, 1928, 33, 115-123.—The intricate problem of the classification of crime is reviewed. The author recommends that a psychiatric study, which would include a review of the prisoner's past history, mental make-up, and social conduct, be made prior to commitment. With this information before the judge parole might be considered the best solution in case of the first offender, but in the case of a confirmed criminal a definite sentence would doubtless be forthcoming. Psychiatric treatment is advocated during the period of commitment. Rather than punishment, medication and education should be foremost in the minds of those dealing with prisoners. Even discharge should not be granted without psychiatric approval.—M. W. Kuenzel (Vineland Training School).

719. Burrow, C. The special school as an Americanization factor in the community. *Proc. & Addr. Amer. Asso. Stud. Feeble-Mind.*, 1928, 33, 23-36.—Special class girls who marry have cleaner homes and better babies than their mothers had. They seek and are willing to follow the advice of physicians and teachers regarding home problems. The boys are at least partially self-supporting. Some of them marry, and others who did not marry have become the main support of their families. The failures among both groups do not differ from the failures of the regular schools. This follow-up study was based on 91 children who had been out of the special schools long enough to test their ability to make good.—M. W. Kuenzel (Vineland Training School).

720. Claude, H. *Paralysie générale et schizophrénie.* (General paresis and schizophrenia.) *J. de neur. et de psychiat.*, 1927, 10, 740-747.—The 4 cases presented in this communication together with observations reported by others lead the author to describe 3 combinations: (1) Beginning with schizophrenic phenomena and showing progressive development of the symptoms of general paresis; the slight parietic lesions at the beginning may suffice to cause the schizophrenic dissociation. (2) More or less transitory catatonic manifestations in the course of a definitely established general paresis; the functional or anatomic changes due to paresis may be the causative element. (3) Beginning with a clinically clear general paresis and presenting at the same time features of dementia praecox; or more characteristically, a progressive improvement in the general paresis, either with or without the malaria treatment, and together with this the development of a typically schizophrenic picture. In this third modification one might think of the schizophrenic disorder as being caused by the curative process, or by the parietic brain lesion (possibly more of meningo-encephalitic type than a definite general paresis); or the paranoid and catatonic manifestations may be considered as an attenuated and prolonged form of general paresis.—H. C. Sys (New York City).

721. Claude, H., & Schiff, P. *Le délire d'interprétation à base affective de Kretschmer et ses rapports avec le syndrome d'action extérieure.* (Interpretative insanity on the affective basis of Kretschmer and its relation to the syndrome of exterior action.) *Encéph.*, 1928, 23, 411-414.—Under the name of delirious interpretation of social relationships, Kraepelin describes a particular form of interpretative insanity which is distinguished from paranoia in that it admits of more scattered and confused delirious ideas which the patients manifest in regard to their surroundings. Kretschmer, by relying on this delirium of social relations, has endeavored to isolate a particular form of interpretative insanity. In the clinical picture described by Kretschmer there are frequently parahallucinatory phenomena, and we can observe there the passage from morbid rumination to delirious interpretation, thence to a feeling of the strangeness of the exterior world, and to a feeling of domination by another which may terminate in complete mental automatism. The authors connect these facts with their view of the psychogenetic origin of the majority of mental automatism phenomena.—Math. H. Piéron (Sorbonne).

722. Courbon, P. *La vertu pathologique. En commémoration de la naissance de Taine.* (Pathological virtue. In commemoration of the birth of Taine.) *Ann. méd.-psychol.*, 1928, 86, 235-252.—Virtue is the ability to resist evil; it signifies courage and force, and is equivalent to combat. Pathological virtue is the ability to make acts arising from morbid impulses appear to conform to morality, and is a false virtue. The virtues identified with occidental civilization are: courage, discretion, temperance, justice, faith, poverty, charity, obedience,

kindness, patience, peace, and humility. These are discussed in this order, the symbols used to represent them are mentioned together with their derivation, and the inherent contradictions are emphasized. Virtues are shown to vary with the group of people involved and with time. Acts of pathological virtue receive official sanction because their pathological origin is not known. The paper is discussed briefly by Dumas and Janet.—O. W. Richards (Clark).

723. Damaye, H., & Warschawski, S. *Guérison et séquelles du délire aigu.* (The cure and the results of the acute delirium.) *Ann. méd.-psychol.*, 1928, 86, 26-31.—An acute delirium is only an episode in the course of a chronic psychosis—such as that found in the case of a melancholic or of a poorly nourished schizophrenic. While anti-infection therapeutics may effect a cure—saving a patient's life—still the chronic psychosis persists, and may even be aggravated. "We have observed it to be thus, whether it be in dementia praecox, a chronic mental confusion emerging into an intellectual weakening, or any chronic delirious ideas." The most serious affections are due to the hereditary mental instability of the patient, which predisposes him to some type of psychosis. It is therefore not surprising that an acute delirium which has been cured leaves in its wake a chronic psychosis since it is only a sort of episode appearing in the course of a chronic disturbance. The author made a study of 32 cases which he classed as follows: 16 cures without any psychoses; 5, with persistence of a mental affection; and 11 deaths. Death occurred in the cases where the patient arrived too late, or was very much infected or debilitated.—P. A. Pooler (Boston, Mass.).

724. Delmas-Marsalet, P. *Les causes de la catatonie dans la démence précoce.* (The causes of catatonia in dementia praecox.) *J. de neur. et de psychiat.*, 1927, 8, 549-554.—The elementary posture reflexes (a contraction of the tibialis anticus on passive dorsiflexion of the foot, not immediately relaxing when the foot is released) in catatonic conditions show a persistence of the contraction over several minutes, then sudden relaxation; they differ from the reflexes in cases of parkinsonism where the relaxation is prolonged (up to 6 seconds) but gradual. Subcutaneous injection of scopolamin hydrobromid (1.25 mg. in 1:2000 solution) may eliminate the posture reflex completely or may have no influence whatever, and these different reactions may alternate in the same individual without any rule. If the catatonic condition persists after administration of scopolamin the "step phenomenon" (*phénomène des échelons*) may be obtained by diverting the patient's attention. The author concludes from these data that the catatonic condition is not a form of intense postural hypertonia on an anatomical basis, but rather a psycho-physiological disorder with the characteristics of voluntary motor disturbances, a form of negativism and of complete withdrawal from the external world. The paper is well documented with myographic tracings.—H. C. Sys (New York City).

725. d'Hollander, F., & de Greeff, E. *Quelques essais thérapeutiques de maladies mentales par la fièvre récurrente africaine.* (Experiments in the treatment of mental disorders by use of African recurrent fever.) *J. de neur. et de psychiat.*, 1927, 8, 555-559.—The African tick fever (*Spirochaeta duttoni*) was transmitted by injection of the blood of infected mice, of a culture of the spirochaete, or of the blood of infected patients. On the average, recovery occurred without curative measures, after three attacks of the fever; the patients then proved to be immune. Though the infection as a rule was benign, a more serious general condition developed in a few cases. The infrequent alterations found in the 20 patients studied (depressions, dementia praecox of long standing and recent) did not exceed, in number or importance, changes observed in such conditions in the absence of any treatment.—H. C. Sys (New York City).

726. Divry, —. *Tumeur cérébrale de la région rolandique. Extirpation. Récidive.* (Cerebral tumor of the rolandic area. Extirpation. Recurrence.) *J. de neur. et de psychiat.*, 1927, 10, 751-755.—The patient, 50 years old, suffered from Bravais-Jacksonian crises beginning in the lower left extremity and developing into generalized convulsions. In the interparoxysmal periods there was in the left limb an exaggeration of the deep reflexes, a diminution of the cutaneous reflexes, a distal anesthesia and a slight atrophy. The diagnosis of tumor (endothelioma) in the sensory-motor cortex of the right side (involving the paracentral lobe) was verified by operation. The improvement after enucleation was followed by an aggravation with frequent epileptiform crises, involvement of both legs, and death, due probably to a recurrence.—H. C. Sys (New York City).

727. Dupouy, R., & Picard, J. *Une erotomanie médicale. Considérations sur l'erotomanie féminine.* (A medical erotomania. A discussion of feminine erotomania.) *Ann. méd.-psychol.*, 1928, 86, 47-54.—This paper gives a detailed case history of erotomania. The disturbance seems to occur in women whose affective tendencies are misunderstood or who are, or think themselves, poorly adjusted in their love life. To the incompatibility (shown in the case under discussion) is added a feeling of affective "incompleteness" and a sexual dissatisfaction which leads the patient to recall her first sentimental aspirations, viz., her romantic love for an American soldier. She transfers this feeling to a person of a similar physical make-up, but of a superior social order; in this case, her doctor. Erotomania may occur in women whose sexual tendencies testify to a certain uneasiness or to homosexual elements, or in persons arriving at the pre-menopause. The disorder always develops a delirious interpretative system of persecution, generally with ideas of influence (magnetism, hypnotism, and suggestion), psycho-verbal hallucinations, and "interior dialogues." If the patients are denied the objects of their desires, they frequently develop homicidal tendencies, rendering them dangerous for life in the outside world.—P. A. Pooler (Boston, Mass.).

728. Elliott, C. M. **The training of teachers for the feeble-minded.** *Proc. & Addr. Amer. Asso. Stud. Feeble-Mind.*, 1928, 33, 166-176.—After postulating the educational objective of the special class for feeble-minded children, the author builds up his program for the training of its teachers. The objective is that of "studying the individual child in order to discover his abilities and to make the most of them." There are 4 specific aims of the special class: (1) to develop right habits and attitudes, (2) to guide and teach the child so that he will be given every intellectual and social opportunity for developing his capacities to the fullest, (3) to develop a child so that he comes to feel his worth as an individual, and (4) in so far as possible to give the child the tools which will aid him in getting and holding a job. The tentative standards of the Michigan State Normal College for the training of special class teachers are advocated. They are: (1) good health, (2) at least one year of successful teaching experience with normal children, (3) training equivalent to graduation from a standard normal school course (two years beyond high school), and (4) one year of special training in addition to that mentioned in (3).—M. W. Kuenzel (Vineland Training School).

729. Estabrook, A. H. **The pauper idiot pension in Kentucky.** *Proc. & Addr. Amer. Asso. Stud. Feeble-Mind.*, 1928, 33, 59-61.—The Kentucky legislature in 1793 passed an act providing for the subsidy of the feeble-minded poor. In 1926-27, 950 individuals received \$70,000 in this form of outdoor relief. The state institution for feeble-minded costs the state approximately \$100,000 a year and cares for 450 inmates. A survey of the records shows that some of the pensioners have been receiving help for 50 years and have cost the state over \$3,000. A change in policy is suggested, namely that of institutional care of the feeble-minded on a larger scale than is at present in operation in Kentucky.—M. W. Kuenzel (Vineland Training School).

730. Eyferth, H. **Entwicklung eines jugendlichen Psychopathen.** (Development of a psychopathic youth.) *Blät. f. Heilz.*, 1928, 5, 30-43.—A detailed case history.—M. Meenes (Lehigh).

731. Franklin, M. E. **Die bedingten Reflexe bei Epilepsie und der Wiederholungszwang.** (The conditioned reflexes in epilepsy and the repetition compulsion.) *Imago*, 1928, 14, 364-376.—Every alteration in the environment may lead to a modification of the conditioned reflexes in consequence of the uncommonly sensitive epileptic organism, and of the insufficiency of the inhibiting apparatus in the higher centers.—C. Moxon (San Francisco).

732. Gesell, A. **The diagnosis of mental defect in early infancy.** *Proc. & Addr. Amer. Asso. Stud. Feeble-Mind.*, 1928, 33, 211-218.—Mental deficiency is not caused by a sudden arrest of development. According to examinations made by the Yale Psycho-Clinic mental defect manifests itself in the early months of infancy and "expresses a fundamental, pervasive reduction of growth potency" in the individual. A diagnosis of mental deficiency can be made in infancy by means of monthly norms of developmental growth. These norms predict the future

mental status of the infant. Children do not tend to overcome subnormality which is revealed in infancy.—M. W. Kuenzel (Vineland Training School).

733. Goddard, H. H. **Feeble-mindedness: a question of definition.** *Proc. & Addr. Amer. Asso. Stud. Feeble-Mind.*, 1928, 33, 219-227.—Dissatisfaction with the present definition of feeble-mindedness is expressed, and in its place the proposition that there are only two degrees of feeble-mindedness, namely idiocy and imbecility, is put forth. The upper limit of feeble-mindedness is placed at 7 years instead of at 12 or 14 as is held by many authorities. The morons are redefined as comprising "that large group of people whom we recognize as of dull intelligence." They are not mental defectives but are "merely the lowest group of the body politic." They require special attention and special training, and are capable of becoming in a limited way regular members of the social group.—M. W. Kuenzel (Vineland Training School).

734. Golla, F., Mann, S. A., & Marsh, R. G. B. **The respiratory regulation in psychotic subjects.** *J. Ment. Sci.*, 1928, 74, 443-453.—A new type of automatically controlled plethysmograph is described. While normal cases respond to the inhalation of an atmosphere containing 2% CO₂ by increased respiratory ventilation, of the 20 psychotic cases examined only two showed any respiratory response to the CO₂ mixture. After ingestion of 10 gms. sodium bicarbonate, both normal and psychotic patients respond by a decreased ventilation with an increase of the CO₂ percentage of the alveolar air. In both groups of cases there is a rise of the urinary pH and an excretion of sodium bicarbonate. When the greater part of the bicarbonate has been excreted a rise of the ventilation above that of the resting value occurs in normal subjects, and the CO₂ percentage of the alveolar air tends to fall to resting limits. In the psychotic patient there is no response to the increased CO₂ pressure during the period that it occurs in the normal subject. The interpretation of this depression (obtaining in psychotics), of the respiratory compensation as a factor in the causation of an acid shift of the acid-base equilibrium is discussed.—E. F. Symmes (Institute for Child Guidance).

735. Guiraud, P. **Souvenirs d'enfance et idées de grandeur.** (Childhood recollections and ideas of grandeur.) *Ann. méd.-psychol.*, 1928, 86, 202-210.—The purpose of this paper is to show how the recollections of childhood play an important part in the development of the ideas of grandeur in chronic deliriums. For instance, a patient remarked that the flowers of a large tree recalled the color of the first dress she had purchased with her own money. Immediately *le Grand Arbre* entered into the delirium, being confused with *l'Arbre du Bien et du Mal*. In explaining the cases cited, the psychoanalysts would hasten to apply the term *symbolism*, which Weiss defines as the replacement of a concept by an image, this substitution being a return to the more primitive type of consciousness. "Our concept is that an instinctive or affective tendency, in proportion as mental development continues, induces a series of

recollections, of ideas or images, which may be applied to it." Most of the patients are under the illusion that "the dreams of their youth are in continuity with their delirium, the interval being effaced, telescoped."—*P. A. Pooler* (Boston, Mass.).

736. Giraud, P., & Thomas, A. *Encephalite epidemique avec epilepsie et myoclonies*. (Epidemic encephalitis with epilepsy and myoclonia.) *Ann. méd.-psychol.*, 1928, 86, 55-60.—This is a case history of epidemic encephalitis. The observation seems (to the authors) to warrant the discussion of the following points: epilepsy in chronic encephalitis, the coexistence of epilepsy and myoclonia, the possible analogy with "psycholepsy," and encephalitic mental troubles.—*P. A. Pooler* (Boston, Mass.).

737. Gordon, A. *L'hallucinosse comme entité clinique*. (Hallucinoses as a clinical entity.) *Ann. méd.-psychol.*, 86, 211-219.—Hallucinatory phenomena are generally only a phase or an incident in the course of mental diseases. The case report in this paper seems to demonstrate psychosensorial phenomena without any psychic manifestations—phenomena which cannot be classed as psychoneurosis. The most striking characteristic of the case in hand is that, from the first appearance of auditory hallucinations, the patient never presented any true delirium. She never tried to interpret or explain the existence of these hallucinations. Despite the fact she imagined she heard her fellow employees talking about her she never questioned the amity or the enmity of those who she thought discussed her, paying attention only to the auditory hallucinations, of which she sought to rid herself. Obviously the hallucination was not a phase of a psychosis. "A theoretical consideration of the case leads the author to the conclusion that there is a category of hallucinations which occupy a nosologic place, which possess the same intrinsic and autonomic character as the other psychic syndromes." "The observation reported is a distinct and definite psychosis, and could be considered as a veritable hallucinoses."—*P. A. Pooler* (Boston, Mass.).

738. Hagueneau, J., & Abricossouff, M. *Isothermognosie d'origine mésocéphalique au cours d'une névrite épidémique*. (Isothermognosia of mesocephalic origin in the course of epidemic neuritis.) *Bull. & Mém. Soc. méd. hop.*, 1928, 44, 3d series, No. 26, 1237-1239.—The authors give an account of a patient who showed in the course of epidemic neuritis certain peculiar disorders in objective sensitivity. These disorders were on the outer part of the leg at a level near the foot. At this level touch exploration was absolutely normal, but pricking was not perceived as such. As was the case for all excitation (pinching, application of heat and cold), pricking aroused the single sensation of warmth. This is the disturbance that the authors call "isothermognosia." This disorder has been observed in patients who have had an anterolateral cordotomy where the fibers of Gowers' column have been surgically cut. But this observation is the first where isothermognosia has been found in the course of a supra-medullary affection or in a mesocephalic localization.

This symptom can be of value as a means of localization.—*Math. H. Piéron* (Sorbonne).

739. Healy, F. H. *Menstruation in relation to mental disorders*. *J. Ment. Sci.*, 1928, 74, 488-492.—That menstruation may be a period of stress has previously been brought out by various investigators, but little research has been done on the influence of mental disease on menstruation. A résumé of the menstrual histories in 243 patients with psychoses of some duration show that increase of excitement is the commonest change, occurring in about half the cases (49%). In established cases of psychosis, amenorrhoea occurs roughly in one in seven cases, while dysmenorrhoea reaches the high proportion of one in five cases. Menorrhagia occurs in 12% of the cases, which would seem a lower estimate than that of G. I. Strachan. A special study of epileptics revealed a high percentage (40%) showing premenstrual or menstrual grouping of the fits, plus the fact that dysmenorrhoea is very common amongst the epileptics. The continuance of the fits beyond the menopause may be due to the formation of the fit habit, over-ruling the endocrine change.—*E. F. Symmes* (Institute for Child Guidance).

740. Helmsmoortel, J., Jr., & van Bogaert, L. *Recherches sur l'état des fonctions vestibulaires dans les crises oculogyres de l'encéphalite (10 cas)*. (Investigations of vestibular functions in the oculogyric crises of encephalitis (10 cases).) *J. de neur. et de psychiat.*, 1927, 8, 574-584.—On the basis of a careful examination of 10 postencephalitic patients by the various labyrinth function tests, and after a consideration of the literature on the subject, the author concludes that the alterations of the labyrinth responses are due to lesions of the vestibular nuclei or of the globus pallidus; that changes in the labyrinth reactions during oculogyric crises result from a transitory hyperemia or from an exaggeration of an already existing hyperemia in the globus pallidus and the adjacent region; and that the corpus striatum participates functionally in the mechanism (tonic component) of the oculogyric crises. The relation of this tonic seizure to the epileptic attack (extrapyramidal tonic equivalent?) is especially noteworthy.—*H. C. Syz* (New York City).

741. Hoven, H. *Quelques cas de psychoses post-encéphalitiques*. (Some cases of postencephalitic psychoses.) *J. de neur. et de psychiat.*, 1927, 8, 560-564.—The article gives brief histories of 5 patients who developed mental disorders months or years after the beginning of the encephalitis. These disorders usually occur in constitutionally predisposed individuals; they may be caused by the encephalitic lesions, or may be a reaction to the encephalitis (hypochondriasis), or may be independent of the encephalitic alterations. They consist mainly in depressive, manic and confusional conditions, and in states of pseudo-dementia (catatonic stupor, stereotypes, impulsive acts, disturbances of speech, somatic disorders) not easily distinguished from dementia praecox.—*H. C. Syz* (New York City).

742. Johnstone, E. R. *Address of the president*. *Proc. & Addr. Amer. Asso. Stud. Feeble-Mind.*, 1928,

33, 177-190.—Institutional work with the feeble-minded affords an exceptional outlet for ambition, success, happiness and service. The outstanding ideal of our civilization is the development of altruism. The ideal of service is achieved in the work with the feeble-minded, for the feeble-minded remain feeble-minded throughout life and the end of the task of their training and improvement is never witnessed by the worker. Opportunity for child-study within institutions for the mentally deficient cannot be excelled, for the "children" continue in residence there from birth to death. In predicting cooperative research among institutions as well as among university laboratories and institutions the research worker will make contributions in general psychology by studying the emotions, fatigue, and association processes; in genetic psychology by studying the growth and development of children; in education by determining what children learn and how they learn it, by applying the principles of job analysis to school and occupational work, and by assisting in the solution of the many problems of the special class teacher; in medicine and endocrinology; and in the social sciences.—M. W. Kuenzel (Vineland Training School).

743. Jones, C. T. The problem of the feeble-minded in New Jersey. *Proc. & Addr. Amer. Asso. Stud. Feeble-Mind.*, 1928, 33, 204-210.—During the past 15 years institutional facilities for the state care of the feeble-minded have increased 258.5% in New Jersey. According to an estimate of the number of feeble-minded in the state, but 7% have been committed to institutions. Since it would be impractical to provide institutions for the total number of feeble-minded, and since it is believed that a large number can adjust in the community, a state program of (1) identification, (2) training, (3) care, and (4) prevention is recommended. Identification is provided through the services of physicians, psychologists, psychiatrists, social workers and educators. Training by teachers who have special preparation in this work is supplied in institutions and in public schools. Care is furnished in institutions for the custodial cases, and care of other types is provided by the community. Preventive work relies on research and proceeds through the cooperation of state, county, city and private agencies.—M. W. Kuenzel (Vineland Training School).

744. Kolb, L. Mentally defective aliens as related to immigration. *Proc. & Addr. Amer. Asso. Stud. Feeble-Mind.*, 1928, 33, 191-203.—Exclusion of mentally defective aliens from the United States began in 1891. The act of 1907, which is now in effect, provided for the exclusion of epileptics, insane persons, idiots, imbeciles and other feeble-minded persons, as well as for certain other classes of mentally unstable persons. This act called for the development of methods which would detect defectives beyond the level of idiots. To date it has been impossible to devise a standardized set of tests with an arbitrary scale for measuring the mental capacities of the various types of foreigners who arrive. The final decision is made from the experience and judgment of the examiners. As a precaution no alien except an obvious idiot is ever certified as defective on the day of arrival.

Later examinations are made on subsequent days. A feeble-minded person is defined as "one who has a mental defect, congenital or acquired in early life, and whose common knowledge, retentiveness of memory, reasoning power, learning capacity, and general mental reactions are severally and distinctly below that exhibited by the average of the same race living under similar environment." The examination of applicants for immigration visas in countries of origin has proved successful because of the generous allotment of time for the examination as well as the homogenous group which is tested.—M. W. Kuenzel (Vineland Training School).

745. Krisch, H. Die hysterische Reaktionsweise. *Prinzipien der Analyse, Behandlung und Begutachtung*. (The hysterical reaction. Principles of analysis, treatment, and expert testimony.) Berlin: Urban & Schwarzenberg, 1928. Pp. 97.—The author presents a synthesis of psychiatric and psychoanalytic doctrines, assuming a critical position in regard to Kretschmer's description of hysteria. He emphasizes how the hysterical reaction makes use of other psychic reactions as well as normal and pathological somatic conditions. He defines the hysterical reaction as a reaction for the sake of certain advantages, material and otherwise, partly under the cover of illness. The pamphlet closes with an exposition of the principles of psychotherapy, including psychoanalysis and dream analysis. It also draws certain conclusions as regards the giving of expert testimony according to German law.—H. Krisch (Greifswald).

746. Laignel-Lavastine, —, & Kahn, P. *Psychose interprétatrice survenant après une fracture du crâne accompagnée d'amnésie; fabulation et hallucinations lilliputiennes*. (Interpretative psychosis coming on after a fracture of the skull which was accompanied by amnesia, fabulation, and Lilliputian hallucinations.) *Soc. de Psychiat. de Paris*, 15 Mars, 1928. *L'Encéph.*, 1928, 23, 335-336.—The authors describe the case of a 32-year-old unmarried woman who had been knocked down by an automobile in January, 1924. She had no hereditary neuropathic taint nor any personal defect before her accident. Her character was normal, and she was of average mental ability. Immediately after her accident she experienced amnesia, psychomotor excitation, fabulation, and auditory and visual Lilliputian hallucinations, together with strabismus and disturbances of equilibrium due to a lesion in the posterior labyrinth. By the end of 4 months the psychological disorders had disappeared. About 2½ years after this fracture of the skull, she began having a persecution psychosis with an interpretative basis. The authors ask whether or not there can be any linking of cause and effect between these two affections.—Math. H. Piéron (Sorbonne).

747. Lautier, J. *Pseudo-mélancolie hystérique*. (Hysterical pseudo-melancholia.) *Ann. méd.-psychol.*, 1928, 2, 122-135.—To offset the old theory that hysteria is simply one phase of a psychosis, the author gives a detailed description of two cases which he diagnoses as "pure hysteria." "The hysterical

delirium is a delirium, not of the dream life, but of the imagination."—P. A. Pooler (Boston, Mass.).

748. Levy-Suhl, M. Das Sündigkeitsproblem in der Neurose. (The sinfulness problem in neuroses.) *Allg. ärst. Zsch. f. Psychotherap. u. psych. Hygiene*, 1928, 1, 457-464.—A. Römer (Leipzig).

749. Lowrey, L. G. The relationship of feeble-mindedness to behavior disorders. *Proc. & Addr. Amer. Asso. Stud. Feeble-Mind.*, 1928, 33, 96-100.—The theory that feeble-mindedness is the outstanding cause of delinquency is rejected. A school survey shows that there is a correlation between behavior difficulties and intelligence, for those children who deviate in either direction from the normal on intelligence tests presents a larger number of behavior problems than do those who are normal with respect to the test. The problems of the feeble-minded do not differ in kind nor degree from those of the superior child. The most significant factor in the production of behavior problems among the feeble-minded seems to lie in "the conflict over difference," namely an inferiority complex. Protection of the feeble-minded from this sense of failure is advocated through institutionalization, and especially through social agencies such as special classes, vocational guidance, and social supervision in home and in the community.—M. W. Kuenzel (Vineland Training School).

750. Macpherson, J. The ninth Maudsley lecture: the new psychiatry and the influences which are forming it. *J. Ment. Sci.*, 1928, 74, 386-399.—By the close of the 19th century Kraepelin had built up an enduring system of clinical psychiatry, and the 20th century marked the advent of psychopathology. The concept of dissociation was Janet's contribution, which formed the basis of the new psychiatry, and as a working hypothesis it is applicable to the whole field of morbid, mental and nervous phenomena. The causes of dissociation fall into two groups, the one including the whole series of psychical and physical agencies, and the other the inherent instability of the cerebral mechanism. Freud took issue as to the causes of dissociation, maintaining that functional dissociation was caused by the conflict of opposing psychological forces, and that the resulting symptoms were due to attempts on the part of the organism to adapt itself to altered conditions. Maudsley attempted to reconcile the vital functions of the cerebral cortex with the physical basis of mental processes. The clinical and pathological researches of Liepmann, Head, Marie, and von Monakow and Pavlov's physiological experiments have broken down the artificial distinction which has hitherto separated physiological from psychical processes and reactions. The question of therapeutics seems to depend on the slow methods of science. The treatment of general paralysis is a significant step. That the state has been forced to intervene in assuming the responsibility of the insane has been beneficent, although attended by some disadvantages for the advance of psychiatry.—E. F. Symmes (Institute for Child Guidance).

751. Mallet, R. Obsession et délire. (Obsession and delusion.) *Ann. méd.-psychol.*, 1928, 86, 220-

229.—An arrested psycho-organic synthesis is believed to be the basis of the obsessions. The development of the psychoses through preoccupation, obsession, a passive transitory stage, to delirium is given in detail. These phenomena are considered in accordance with the faculty of autoconduction of Toulouse and Mignard and of automatism of Clérambault. These concepts are thought to aid in the clarification of the nature of obsession and delusion and to lead towards an understanding of these diseases.—O. W. Richards (Clark).

752. Marie, A. Psychose familiale. (Familial psychosis.) *Soc. de Psychiat.*, 15 Mars, 1928. *L'Encéph.*, 1928, 23, 345-346.—The author discusses the case of an insane woman afflicted with a delirium of interpretation and of persecution, megalomania, and erotism. The interesting fact is that she is the elder sister of twins with manic-depressive cyclothymias which occur simultaneously and with homochronic rhythm. It is a case of familial insanity of a hereditary degenerative character. No one has been able to disclose any known hereditary antecedents.—Math. H. Piéron (Sorbonne).

753. Massaut, J. Délire à deux? (Communicated insanity?) *J. de neur. et de psychiat.*, 1927, 9, 693-697.—So-called "délire à deux" is very rare; the transmission of the insanity in such cases is only apparent and occurs only under special circumstances and in predisposed individuals. 2 male patients, aged 54 and 50, were both of a hyperexcitable make-up and each presented a paranoid disorder with ideas of grandiosity and of persecution. Living closely together in the institution, one of them imposed the specific coloring of his ideas upon the other, so that the paranoid preoccupations of both were centered upon the same subjects, based on the same arguments and directed against the same persons. The same measures of protection were taken by both patients.—H. C. Sys (New York City).

754. McPherson, G. E. Some observations on the care of the feeble-minded. *Proc. & Addr. Amer. Asso. Stud. Feeble-Mind.*, 1928, 33, 77-88.—The historical summary of the methods used in the care, treatment, and training of the feeble-minded is concluded by mentioning the development of the outpatient clinics from institutions and the work of the public schools in establishing special classes for these children. The children should be committed to institutions while they are young, preferably between the ages of 6 and 7, in order that they may be educated and supervised during their formative years. The curriculum of the institutional school should parallel that of the public school up to the sixth grade. Occupational and industrial training should accompany the otherwise formal instruction.—M. W. Kuenzel (Vineland Training School).

755. Mignard, M. L'Unité psychique et les troubles mentaux. (Psychic unity and mental disorders.) Paris: Alcan, 1928. Pp. 318. 35 fr.—The author seeks to show the psychological unity of thought. He declares that hallucinations, obsessions, and feelings, the sources of delirium, belong to the conscious unity of the subject; that impulses, the organism's thought activities, cannot prove its dual-

ity; and that dementias are the reactions of degradation and not the dissociations of the psyche. It is this notion of mental unity and the study of the reaction of this unity in various psychopathic syndromes that the author proposes as the new basis of pathological psychology. He next examines the theoretical and pragmatic consequences of his conception in regard to normal psychology. Orthopsychology seems to him to be a future discipline studying the mental form and the means of cultivating and protecting it. In the 25 chapters of the book, the author discusses successively: obsessions and mental unity; organo-psychic action in epileptic crisis; hallucinations (verbal, visual, visceral, gustatory, olfactory, psychological) and mental subduction; morbid mental subduction in mania, melancholia, and mental confusion; deliriums, schizoidia, schizophrenia, pseudo-dementias, true dementias, mental backwardness, mental lack of balance, and secondary psychopathic reactions; the reaction of mental unity in states of backwardness and of instinctive perversion, epileptic impulsion and psychasthenic obsession, and psychoneuroses; distinct consciousness; actual and virtual consciousness, and memory; the psychological monad (unity, consciousness, affectivity, and spontaneity); and the psychological monad and mental spontaneity. There is no bibliography.—*Math. H. Piéron* (Sorbonne).

756. Monakow, C., & Mourgue, R. *Introduction biologique à l'étude de la neurologie et de la psychopathologie. Intégration et désintégration de la fonction.* (A biological introduction to the study of neurology and psychopathology. Integration and disintegration of function.) Paris: Alcan, 1928. Pp. 416. 80 fr.—The authors say that what has rendered methods of work of no avail up to the present is the fact that these methods have separated the phenomena to be studied from the conditions which presided over their birth; that the time factor has been ignored, which alone explains the integration and disintegration of function; that the methods have not taken into account the fact that the passage from one stage of evolution to another constitutes a passage from one order of biological values to another order; that, moreover, one cannot construct evolution by means of that which has been evolved; and that there must be placed at the basis of vital activity an active force subject to the law of the *moment du temps* (moment of time), a force which the authors call the *hormé* (from the Greek, meaning impulsion, a setting into action). There are two main parts in the study: (1) Integration. The basis of our psychological life is formed by the propulsive tendency of the living entity, the *hormé*, and instinct is a force sprung from this *hormé* which realizes at the same time the vital interests of the individual and those of the species (the tendency towards union with objects of the exterior world, *kllisis*, and the tendency towards withdrawal from harmful objects or conditions, *ékklisis*). He reviews the neural basis of instincts, the instinct of conservation, sexual, social, and religious instincts, biological consciousness (*syneidesis*) or the principle of auto-regulation of function. He follows in

detail the evolution of motricity considered as a common instrument of instincts and causality, the relations of the latter to the sphere of orientation in time, and the biological problem of articulate language. (2) Disintegration. The authors discuss in turn morphological disorders due to a break in the continuity of the nervous substance: apraxia, agnosia, aphasia, and the disturbances of psychological orientation accompanying morphological disorders. The problems of psychoneuroses and of schizophrenia are taken up. The most important point in this study for the authors is the rôle of instinct in man. That which sets integration in motion is a propulsive force, and it is through the phenomenon of auto-regulation (biological consciousness) that equilibrium of these propulsive forces can be realized. There is no bibliography.—*Math. H. Piéron* (Sorbonne).

757. Nathan, —, & Gallet, —. *Les bouffées délirantes motivées.* (Motivated delirious attacks.) *Encéph.*, 1928, 23, 283-289.—The authors describe the cases of two patients afflicted with delirious attacks. One was a subject as near the normal state as possible, the other was a case of general debility, but without any sign of dementia praecox. In both cases the delirious ideas represented, as a natural consequence, habitual preoccupations. The deliriums and preoccupations were both solidary, and the delirious paroxysm had been prepared at a long previous date by the progressive sensitivity of emotivity. These deliriums find their place among the emotive psychoses rather than among the paranoid syndromes.—*Math. H. Piéron* (Sorbonne).

758. Notkin, J. *Is there an epileptic personality make-up?* *Arch. Neur. & Psychiat.*, 1928, 20, 779-803.—A study of the personality make-up in seventy-five male and seventy-five female epileptic patients revealed a definite correlation between the age of onset of the seizures and the type of personality noted later. The so-called epileptic make-up is apparent only in cases where there is an early onset of seizures. On the other hand, with the syntonio or normal type of personality, the onset of the seizures occurred mostly after the second decade. There are several groups between these two extremes. With such variability in the types of personality it is unwarranted to speak of a definite epileptic type of personality. Peculiarities which develop are looked upon as the result of the epileptic reaction and not as the cause of the convulsive manifestation in so-called idiopathic epilepsy.—*E. C. Whitman* (Boston Psychopathic Hospital).

759. Nyssen, R. *A propos de l'escroquerie morbide.* (Concerning morbid fraud.) *J. de neur. et de psychiat.*, 1927, 9, 685-690.—In some psychopathological conditions it is difficult to decide whether fraudulent acts are of a morbid character and should be so considered legally. The case of a mythomaniac (Dupré) is reported who for several years indulged in frequent frauds, forgery and assumption of false names. He was emotionally unstable and suffered from different forms of spasmodic crises, especially such resembling crises of affect epilepsy (Bratz). In other respects the pa-

tient's behaviour was better coordinated; he was interested in his family and there were no alcoholic excesses. Where the criminal activity is restricted to frauds and is closely connected with mythomania (pseudologia) we have to deal with a single pathological complex, which is designated by the author as a mythopathic complex.—*H. C. Sys* (New York City).

760. Ossipov, V. *Sur le traitement de la démence paralytique.* (On the treatment of paralytic dementia.) *Ann. méd.-psychol.*, 1928, 86, 101-109.—The author maintains that psychiatrists have erroneously termed this disease incurable simply because they have been ignorant of the methods of treatment. He consequently sets forth two methods, with the final warning that the anti-syphilitic must precede the malarial.—*P. A. Pooler* (Boston, Mass.).

761. Pailhas, J. *Alternance psychique dans le cadre élargi de l'évolution familiale et cyclothymie dédoublée.* (Psychological alternation in the widened compass of familial evolution and doubled cyclothymia.) *Encéph.*, 1928, 23, 533-534.—The author asserts that, outside the cases bordering more or less on a morbid state, each person normally carries within himself an alternation. Education has established one of these stages, but the other, antagonistic, stage may come to the surface some day as the result of a pathological disturbance.—*Math. H. Piéron* (Sorbonne).

762. Potter, H. W. *Mental deficiency as a symptom of syphilis.* *Proc. & Addr. Amer. Asso. Stud. Feeble-Mind.*, 1928, 33, 101-109.—Feeble-mindedness may be a symptom of syphilis through three pathogenetic mechanisms, as illustrated by case studies; vitiation of the germ cell by syphilis, or of the embryonic or fetal development of the healthy fertilized ovum by the toxicosis of maternal syphilis, or by direct infection *in utero* with consequent damage. The reader is left with the suggestion that other chronic infections might cause mental deficiency.—*M. W. Kuensel* (Vineland Training School).

763. Prados y Such, M. *Lepra y psicosis.* (Leprosy and psychosis.) *Arch. de neurobiol.*, 1928, 8, 161-175.—Among all of the published works on the problems of leprosy there are few dealing with the accompanying cerebral and mental changes. Some have denied that the bacillus of Hansen has any direct effect on the mental disorder. Hansen himself has held the existence of a leprosy psychosis to be improbable, since he could not find this bacillus in the cerebral cortex. But since the discovery of the bacillus in the cerebrum by Sudakewitsch it can no longer be denied that the influence of these agents in the cerebrum may be responsible for the changes in the mental reactions of those infected. The characteristics of this often attending psychosis differ in a great degree with the nationalities of those stricken. Thus it seems that factors of race, individual constitution, and environment are important. The cases noted showed exaggerated egocentricity, lack of confidence, suspicion and pride, with general paranoid traits. While some may hold that the onset of the disease caused an emotional upset which contributed to the psychosis, the author

cites a case in which the mental disorder appeared before the recognition of the nature of the disease. In many cases of leprosy, psycho-motor agitation, hallucinations, delusions, and catatonic symptoms terminating in stupor are apparent.—*J. W. Nagge* (Clark).

764. Riese, W. *Über einige motorische Herdsymptome. Echoerscheinungen, Iteration, Perseveration.* (Concerning motor herd symptoms. Echo phenomena, iteration, perseveration.) *Psychol. u. Med.*, 1927, 2, 172-183.—The author attempts a biological explanation of certain symptoms of mental disease. "Echoing" is a formal way of following a leader. All social groups follow leaders in some way. Iteration may be an expression of rhythmic activity which is common to all living things. Non-rhythmic iteration indicates inability to stop, probably due to disease of inhibitory centers. Perseveration indicates lack of adaptability, due to lowered vitality. In a diseased brain, perseveration may serve a useful purpose by economizing nervous energy. A healthy organism, when tired, protects itself from unendurable burdens by perseveration.—*M. F. Martin* (West Springfield, Mass.).

765. Salmon, A. *Sur le mécanisme des douleurs ischémiques ou angiospasmodiques.* (On the mechanism of ischemic or angiospasmotic pains.) *Encéph.*, 1928, 23, No. 4. Pp. 290.—The study is a general examination of the question, and after reviewing all the ischemic or angiospasmotic disorders (intermittent claudication of the extremities, Raynaud's malady, contracture of Volkmann, angina pectoris, abdominal angina, and migraine), the author concludes that the pathogeny of these disorders is explained by the venous hyperemia which accompanies them. Venous hyperemia can produce pain by a very complex mechanism, varying according to the region which is the seat of the ischemia or the angiospasm. It can produce the pain not only in a direct fashion as the result of its irritative action on the sensory nerve elements but also in an indirect manner.—*Math. H. Piéron* (Sorbonne).

766. Schraff, R. *Interprétation psychologique des phénomènes des apraxies motrices.* (A psychological interpretation of the phenomena of motor apraxia.) *L'Algérie méd.*, 1928, 19-22.—The study of motor apraxic phenomena shows that the question is one of dissociation, of a diaschisis of praxic actions, going from parapraxias to true apraxias and from "parecphorias" to total "anecephorias" with mnemonic engrams and associated with eupraxias. These troubles are due to lesions, not of the preformed, innate centers of praxias, but of associated, adapted groups. Apraxias and their phenomena of expression are not simple deficiencies in harmony with the centers of lesions in the hemispheres, but they have a biological significance which proves the truth of Monakow's law: "The essence of a biological or biochemical destruction of the living cerebral substance consists in a regression towards the forms and functional phases which are phylo- and ontogenetically anterior or towards their elements."—*Math. H. Piéron* (Sorbonne).

767. Schroeder, P. L., & Bartelme, P. A mental health program as a juvenile court method of supervising the feeble-minded. *Proc. & Addr. Amer. Asso. Stud. Feeble-Mind.*, 1928, 33, 37-58.—The mental health program is based on psychiatric and psychological studies including the evaluation of the child's social background, his intelligence level, and physical and psychiatric findings. Three groups of cases were studied over a period of four years: (1) those committed to institutions, (2) those retained in the community, (3) those paroled after institutionalization. A definite attempt is made to return the children to the community whenever possible. This is accomplished by simplifying their environments in order that they may adjust without being sent to institutions. Only two-thirds of the mentally defective children coming to the Juvenile Court are referred to the clinic because of the filing of petitions alleging feeble-mindedness. 64% of these, in turn, are committed to institutions for the feeble-minded. The remainder are returned to the community under the supervision of the parole officer. During the period of study 59% have made satisfactory adjustments and have been discharged. Of those who were first sent to institutions and then paroled 68% have made satisfactory adjustments.—M. W. Kuensel (Vineland Training School).

768. Skottowe, I. On the methods in vogue at the Boston Psychopathic Hospital. *J. Ment. Sci.*, 1928, 74, 474-487.—"The scope of this contribution is to give an account of the administrative and clinical methods at the Boston Psychopathic Hospital, to give a picture of the clinical material, and to discuss the advantages and disadvantages of the system."—E. F. Symmes (Institute for Child Guidance).

769. Souques, A. Physiologie pathologique de l'aphasie comitiale transitoire. (Pathological physiology of transitory comital aphasia.) *Rev. neur.*, 1928, 35, 411-415.—The author emphasizes the difficulty present in the study of aphasic disorders during epileptic losses of consciousness, but he contributes some observations which permit a realization of the pathological physiology present in transitory aphasia in the case of epileptic equivalents due to a spasm in one of the terminal branches of the Sylvian vein which irrigates the Wernicke zone, a spasm which suppresses the functioning of this zone during a short period of time. He found in these patients two stages in writing disorders, and also in disorders in ideography, though in a lesser degree. The author considers the zone of Wernicke as a specialized intellectual center for language and for things learned didactically, without feeling himself obliged to consider this zone as the center of hypothetical language images.—Math. H. Piéron (Sorbonne).

770. Stafford, G. M. G. Some of the problems encountered in an institution for the feeble-minded. *Proc. & Addr. Amer. Asso. Stud. Feeble-Mind.*, 1928, 33, 228-234.—Among the institutional problems discussed are those (1) of securing funds from the state legislature for other than maintenance, (2) of how to get and keep employees of the right kind, (3) of the aim of accomplishment for feeble-minded children in institutions, (4) of the problem of the

sexual perversions of the feeble-minded, and (5) of the relationship existing between the mental and physical status of the children.—M. W. Kuensel (Vineland Training School).

771. Strecker, E. A., & Ebaugh, F. G. *Clinical psychiatry*. Philadelphia: Blakiston, 1928. Pp. 458. \$4.00.—The book is written for practitioners and students. Material is grouped under the following headings: general etiology, diagnosis, prognosis and treatment; classification of mental diseases; methods of examination; the organic psychoses; toxic psychoses and psychoses with somatic diseases; manic-depressive psychoses; involution and presenile psychoses; dementia praecox; paranoia and paranoid conditions; the psychoneuroses; constitutional psychopathic inferiority; mental deficiency; psychological conception of mental disease. There are shorter sections on the management of behavior in children who have had encephalitis; physical habitus and mental disease; the newer treatment of paresis. The case method of presentation is used, with discussions, illustrations and references.—T. Acree (Boston Psychopathic Hospital).

772. Targowla, R., & Picard, J. Hallucinations visuelles élémentaires et conscientes dans un cas de décollement rétinien; intégration secondaire dans un système délirant. (Elementary and conscious visual hallucinations in a case of retinal separation; secondary integration in a system of delirium.) *Ann. méd.-psychol.*, 1928, 86, 136-142.—This paper is a description of a middle-aged woman, who, on becoming blind, at first developed ideas of persecution, and later visual hallucinations. These visual phenomena, which are elementary in character, are of two orders: the shadows arising from the fixation of the eyes, and the entoptic phenomena caused by the movements of the head. To the author it seems that "there exists a hallucinatory syndrome appertaining, by its own right, to retinal separation." This objectivation of the forms perceived shows the interaction of the psyche and the sensorial trouble in the hallucinatory mechanism.—P. A. Pooler (Boston, Mass.).

773. Thomas, H. P. The employment history of auxiliary pupils between sixteen and twenty-one years of age in Springfield, Massachusetts. *Proc. & Addr. Amer. Asso. Stud. Feeble-Mind.*, 1928, 33, 132-148.—A statistical analysis of the employment histories of 142 auxiliary or special class pupils who left school between 1923 and 1928 shows that 88 boys had 211 jobs in less than 5 years, while 54 girls had 178 jobs in the same length of time. Boys tend to have fewer jobs than girls. The jobs are unskilled. The majority of jobs are short-term jobs, namely for 6 months or less for both sexes. The longest period of idleness preceded the first job for both groups, and there is never a time when there is not a large proportion who are without jobs. The study indicates poor job placement in the first instance and suggests that there should be a job-placement teacher. This would make for individual follow-up. For training, a broad general program with emphasis on home economics and shop courses adapted to the level of auxiliary pupils is advocated

in preparation for their future jobs.—M. W. Kuenzel (Vineland Training School).

774. Timme, W. **Mongolism and its treatment.** *Proc. & Addr. Amer. Asso. Stud. Feeble-Mind.*, 1928, 33, 89-95.—Mongolian feeble-mindedness is probably caused by a disturbance of the anterior lobe of the hypophysis cerebri. Results of treatment with anterior lobe pituitary substance in various combinations during a ten-year period show that it does not cure, but according to observation seems to develop the child physically and mentally more than would have been the case without this medicinal help.—M. W. Kuenzel (Vineland Training School).

775. Turner, F. D. **The aims and objects of a mental deficiency institution.** *J. Ment. Sci.*, 1928, 74, 465-473.—E. F. Symmes (Institute for Child Guidance).

776. Van Gehuchten, P., & Stroobants, Ch. **Un cas de syndrome chiasmatique.** (A case of chiasmatic syndrome.) *J. de neur. et de psychiat.*, 1927, 10, 748-750.—The symptoms in this case consisted of a progressive impairment of vision, bitemporal hemianopsia, optic atrophy, signs of increased intracranial pressure, no abnormal findings on the roentgenogram. The diagnosis remained uncertain, either (1) a tumor of hypophyseal origin, but of supra-sellar development and showing symptoms only of a lesion of the chiasma, or (2) a primary tumor of the chiasma not yet sufficiently advanced to give all the characteristic symptoms described by Cushing.—H. C. Sys (New York City).

777. [Various.] **Premier congrès des sociétés françaises d'oto-neuro-oculistique.** (First congress of the French oto-neuro-ophthalmological societies.) *J. de neur. et de psychiat.*, 1927, 9, 704-712.—Summaries are given of 20 of the 29 papers read at the congress, all of which deal with nystagmus and its clinical application. The communications discuss the tests through which nystagmus is experimentally produced, the differentiation between central and peripheral nystagmus, the importance of a careful study of nystagmus as an aid in the differential diagnosis of affections of the labyrinth and of diseases of the central nervous system, and especially in the localization of brain abscesses and tumors. Other papers deal with the nervous structures and pathways connected with the mechanism of nystagmus, with the vaso-motor elements assumed to play a part in experimental nystagmus and with the theory of a vegetative disorder as the cause of certain forms of nystagmus (miners' nystagmus).—H. C. Sys (New York City).

778. [Various.] **Société de Médecine Mentale de Belgique.** (Belgian Society for Mental Medicine.) *J. de neur. et de psychiat.*, 1927, 8, 584-596.—(Proceedings of the special meeting held on July 2nd, 1927, at the Asile Caritas, Melle.) Verstraeten remarks, on the basis of cases presented, that circumscribed and possibly disseminated syphilitic lesions of the cerebral cortex are more easily curable (malaria treatment) than the lesions of general paresis. Other cases of interest discussed at the meeting were a syndrome of depression with myoclonias and

hyperglycorrhachia on an encephalitic basis, homochronous and homologous psychoses (2 pairs of schizophrenic sisters and another group of 3 sisters of whom two had a paranoid syndrome and the third was feeble-minded). Vervaeck, discussing the question of morbid frauds (Nyssen's paper, see III: 759) suggests that such cases be kept in prison, though under a special service.—H. C. Sys (New York City).

779. Vermeulen, G. **L'Oeuvre psychiatrique d'Emile Kraepelin.** (The psychiatric work of Emil Kraepelin.) *J. de neur. et de psychiat.*, 1927, 7, 511-520.—Kraepelin's work is presented in its relations to earlier psychiatric formulations. The principles of his classification, particularly his concepts of manic-depressive insanity, of dementia praecox and of paraphrenia are discussed in some detail and with special consideration of developments among French psychiatrists.—H. C. Sys (New York City).

780. Vermeulen, G. **Le déficit mental au cours des tumeurs cérébrales.** (Mental defect in the course of cerebral tumors.) *J. de neur. et de psychiat.*, 1927, 9, 698-703.—The mental defect which may develop as a result of brain tumor involves especially the automatic and spontaneous functions; it is characterized by a general retardation of the mental processes, by an impairment of spontaneous attention and of reproductive memory, by a difficulty of expression and activation, by marked fatigability, and by the necessity of employing constantly voluntary and creative mental mechanisms. These data are presented in two diagrams using a psychographic method, the abscissae indicating the age and the ordinates indicating different mental functions; namely (1) perceptive and reactive attention, (2) retentive and reproductive memory, (3) judgment and reasoning, (4) associative activity and performance. Intellectual activity is divided by the author into three groups: (1) intuitive thinking, (2) discursive thinking, and (3) automatic thinking. There are, accordingly, various forms of dementia: (1) classic dementia (paretic, arterio-sclerotic, senile), in which the discursive and creative thinking is especially affected and the automatic functions suffer later; (2) dementia praecox, in which the spontaneous and instinctive thinking is impaired, while the discursive and rationalizing functions may remain entirely intact; (3) cerebral tumors, in which there is a deficiency of the automatic functions, of memory and of acquired mental patterns and attitudes. These conditions of dementia are often a deficiency in utilization for a long time before they become a deficiency in means; they remain for a long time reversible and subject to therapeutic attempts.—H. C. Sys (New York City).

781. Vincent, Cl. **Diagnostic des tumeurs comprimant le lobe frontal.** (The diagnosis of tumors compressing the frontal lobe.) *Rev. neur.*, 1928, 35, 801-884.—The author endeavors to explain the method which is of so much value in the excellent results of American nerve surgeons. He describes the symptoms which justify the diagnosis of frontal tumors. He endeavors to set up a syndrome by which the signs of intracranial hypertension are accompanied: (1) facial paralysis of the central type,

particularly if this paralysis has been preceded by involuntary movements, by twitchings in that part of the face under discussion (2) aphasia, more or less pronounced; and (3) certain mental troubles, premature and clearly characteristic, disorders in memory of recent events, indifference, transitory changes in character, and loss of the idea of the place actually occupied. When this symptomatic triad is clear, the diagnosis can be practically certain. After showing how this diagnosis must be made, the author explains the most frequent errors which are committed. In one group of cases, the tumor and its frontal localization are not recognized at once (progressive general paralysis, hysteria, neurasthenia, and essential epilepsy). In a second group of cases there is no frontal tumor, but there exist mental and ocular disorders, and a center of softening in the frontal lobe is mistaken for a frontal tumor. After showing how to diagnose the precise seat and the nature of these tumors, the author reviews the different kinds of tumors. A bibliography of approximately 200 works concludes the study.—*Math. H. Piéron* (Sorbonne).

782. Watkins, H. M. Administration in institutions of over two thousand. *Proc. & Addr. Amer. Asso. Stud. Feeble-Mind.*, 1928, 33, 235-254.—Local administration should be conducted through department heads, of which the medical, psycho-educational, and maintenance departments are the major divisions. A central governing body in the state is recommended for purposes of (1) advising as to policy and practice to obtain throughout the state, (2) standardizing institutional matters, (3) suggesting, and (4) cooperating.—*M. W. Kuenzel* (Vineland Training School).

783. Westwell, A. E. Recreation in a state institution. *Proc. & Addr. Amer. Asso. Stud. Feeble-Mind.*, 1928, 33, 149-165.—Recreation maintains the morale of the inmates of institutions. Disciplinary problems diminish as intelligent and close supervision of recreation increases. The stage affords valuable lessons in conduct and behavior, chief of which is that of teaching obedience. Music interests all grades of mentally deficient children. Concrete illustrations of how to change work, which would ordinarily be considered monotonous, into play are given.—*M. W. Kuenzel* (Vineland Training School).

[See also abstracts 532, 554, 556, 558, 620, 857, 876, 887, 888, 900.]

SOCIAL FUNCTIONS OF THE INDIVIDUAL

784. Anderson, N., & Lindeman, E. C. Urban sociology. New York: Knopf, 1928. Pp. x + 414.—The book is written to meet the needs of students of the sociology of urban communities. There are four sections, dealing with the structure of the city, functions of the city, urban personalities and groups, and social changes and the impact of the urban environment. Each of the 19 chapters is followed by a selected, annotated list of references and readings.—*L. W. Gellermann* (Clark).

785. Belaiew-Exemplarsky, —. Grundsätzliches für die Untersuchung der Musikalität. (Essential elements in the investigation of musical ability.) *Psychotechn. Zsch.*, 1928, 3, 107-110.—The author defines the elements of musical ability, cites experiences with his pupils as characteristic examples and postulates correlations which are to control authenticity, especially in regard to children. Positive results are not given.—*F. Giese* (Stuttgart).

786. Bernard, L. L. The family in modern life. *Int. J. Eth.*, 1928, 38, 427-442.—Discussion of the problem of family disorganization, with several suggestions for solution.—*M. Meenes* (Lehigh).

787. Bernard, L. L. The development of methods in sociology. *Monist*, 1928, 38, 292-320.—All of the methods now used in sociological investigation were to be found at least in embryo among the Greeks of the age of Plato and Aristotle. In Socrates we have the dialectic method which was formalized by Aristotle, who also used inductive methods, such as informal statistics and the case method. History was long the main source of sociological generalization because of the artificial fixity of historical data, and the difficulty of perceiving flowing contemporaneous facts. Historical facts, becoming inadequate sources, were replaced by anthropological data with a final resort to contemporaneous social data, with methodological advantage. With the increase of comparable data, the primitive method of case analysis is supplemented by statistical generalization. The case method has gone through several stages of development, from primitive forms of didactic fiction to the modern descriptive survey, analytical survey, and case history. Statistical method has evolved from the informal, characterized by judgment of general quantitative tendencies, to the formal or strictly mathematical treatment of data. The analogical method of interpretation and generalization of sociological conclusions, although deductive rather than inductive, still persists owing to a lack of completely adequate statistical method. Analogical, case, and statistical methods are methods of sociological generalization. Historical, archaeological, anthropological and contemporaneous methods may also be recognized in the sense of methods of collecting facts as contrasted with methods of generalizing them.—*C. M. Diserens* (Cincinnati).

788. Bernays, E. L. Propaganda. New York: H. Liveright, 1928. Pp. 159. \$2.50.—*W. S. Hunter* (Clark).

789. Beth, —. Frömmigkeit der Mystik und des Glaubens. (Piety of mysticism and faith.) Leipzig: Teubner, 1928.—*A. Römer* (Leipzig).

790. Beth, —. Religion und Magie. (Religion and magic.) (2nd rev. ed.) Leipzig: Teubner, 1928.—*A. Römer* (Leipzig).

791. Blakeslee, L. Revised form of the process interview. *J. Delinq.*, 1928, 12, 144-187.—Various methods of case reporting in social case work are evaluated. The author favors a revised form of the process interview—a form in which the worker describes the aims of the interview and in some detail the progress made toward a realization of these

aims, as well as the techniques used and the reactions stimulated. Though it is opined that a verbatim report of an interview is unnecessary, valuable indeed are considered to be the comments upon the means used in attempts to establish rapport, to persuade, to motivate, to enlighten, etc., and the comments upon the reactions these means beget.—*H. L. Koch* (Texas).

792. **Blondel, Ch.** *Introduction à la psychologie collective.* (Introduction to collective psychology.) Collection Armand Colin, 1928, Tome 102. Pp. 206. 9 fr.—The author's aim is to define collective psychology. He decides on working hypotheses and seeks to orient and systematize his efforts. Collective psychology is for him a fundamental branch of psychology. He considers that man is always greatly socialized, and that all mental phenomena bear the imprint of collectivity. In the first part the author analyzes the conceptions of Comte, Durkheim and Tarde and the practical outcome of these doctrines. In the second part he examines certain of the main problems of general psychology—perception, memory, and the affective life—placing all, finally, more or less in the jurisdiction of collective psychology. This psychology by itself, when it has been scientifically established, will be able to let us know exactly what is independent in all mental activity and what is in the field of group action, and, furthermore, what is the value of characteristics due to the species or to individual peculiarities.—*Math. H. Piéron* (Sorbonne).

793. **Boas, F.** *Anthropology and modern life.* New York: Norton, 1928. Pp. vii + 246. \$3.00.—The object of this book is to discuss problems of modern life in the light of the results of anthropological studies carried on from a purely analytical point of view. Therefore, the concepts of race and stability of culture are discussed. It is difficult to know whether any one of the human races is further removed from the ancestral animal form than another. The ancestral form had a flat nose. Bushmen, negroes and Australians have flat, broad noses. They are in this sense farthest removed from the animal forms. Apes have narrow lips. The lips of the whites are thin, those of many of the Mongoloids are fuller. The negroes have the thickest, most excessively "human" lips. Some birds have brains much larger proportionately than those of higher mammals without evidencing superior intelligence. If we were to select the most intelligent, imaginative, energetic and emotionally stable third of mankind, all races would be represented. The forces that bring about social changes are active in the individuals. Here accident cannot be eliminated. Social change may be dependent upon the presence or absence of eminent individuals, upon favors bestowed by nature, upon chance discoveries or contacts; therefore prediction is precarious, if not impossible. Laws of development, except in most generalized form, cannot be established and a detailed course of growth cannot be predicted.—*R. Stone* (Clark).

794. **Brunner, —.** *Die Mystik und das Wort.* (The mystic and the word.) Tübingen: Mohr, 1928.—*A. Römer* (Leipzig).

795. **Clements, F. E., Schenck, S. M., & Brown, T. K.** *A new method for showing objective relationships.* *Amer. Anthropol.*, 1926, 28, 585-604.—For some years there has been a growing need of more exact methods for treating cultural data. New theories and concepts, as well as careful field studies, have modified views of cultural processes and tended to render ethnology constantly more objective. In the interest of further refinement of method the authors offer a number of new suggestions for the arrangement and statistical treatment of ethnological materials, basing the study on tabulated data from various Polynesian groups. Tables of cultural features, methods of reduction to statistically comparable units, and formulas for the evaluation of the significance of such features are presented. The outlines of the authors' interpretation are exhibited in graphic form.—*C. M. Diserens* (Cincinnati).

796. **Clements, F. E.** *Quantitative method in ethnography.* *Amer. Anthropol.*, 1928, 30, 295-311.—A reply to the criticism of Wallis (see III: 854) directed against the objective method of the author and his associates. The distinction between the author's use of statistical method and that of older investigators is indicated in a series of propositions: (1) The method is for the determination of special relationship in limited areas of homogeneous culture. (2) The traits utilized must constitute a representative sample of culture-wholes in all the sub-areas studied. (3) All traits must be reduced to simplest units, whereby generic traits are automatically weighted. (4) The statistical method shows only positive or negative correlations and the degree of such correlations, without an attempt at complete explanations.—*C. M. Diserens* (Cincinnati).

797. **Conzemius, E.** *Ethnographical notes on the Black Carib.* *Amer. Anthropol.*, 1928, 30, 183-205.—The Black Carib are the result of an intermixture of the true Carib, Arawak, and Negro blood. Formerly occupying the lesser Antilles, they were first confined to St. Vincent, then deported to Central America. They number about 20,000. They were formerly warlike cannibals, resembling negroes rather than Indians, but they preserve an Indian culture. They are fond of dancing, music and alcohol, maintain death wakes, polygamy and a modified couvade, and formerly showed skill in simple arts, e.g., pottery and weaving. These arts are now lost. They maintain division of labor between the sexes, hunting and fishing belonging to men while women practice agriculture. The Carib are feared as sorcerers and are supposed to be acquainted with poisons, "love medicines," etc. Disease is attributed to evil spirits, which may be banished by the medicine men or dugumaster at a dugu or three-day religious festival, which the author describes in detail.—*C. M. Diserens* (Cincinnati).

798. **Dahlstrom, S.** *Is the young criminal a continuation of the neglected child?* *J. Delinq.*, 1928, 12, 97-121.—The author, who made a study of young criminals, found that 50% of his cases had at least

one parent who was drunk, on an average, every day; 50% had but one parent in charge of their rearing, and 33% had mothers who worked outside of the home. 53% of the boys (average age 19 years) had been arrested for drunkenness 1-20 times; 42% had been detained an extra year or more in one or more classes; 24% had been placed in the charge of rural guardians; and 5, 18, and 19% had been placed in schools for the feeble-minded, school homes, and reformatories, respectively. The history of 3 generations of a family of criminals is reported. Of the children removed from their unfavorable environments before the age of six, all turned out well. All of the others had long and startling criminal records.—*H. L. Koch* (Texas).

799. Davidson, D. S. *Notes on Tete de Boule ethnology.* *Amer. Anthropol.*, 1928, 30, 18-46.—From the viewpoint of ethnology the Tete de Boule Indians of Quebec occupy an ethnographic location of primary significance, since they represent the most eastern exponents of Algonquian-Ojibwa culture. They are physically characterized by pronounced brachycephaly, whence the tribal name. The average cephalic index for 16 males was between 83 and 84; that of 7 children between 84 and 85, while the index of 7 females was between 86 and 87. The variation for males ranges between 80 and 85, that for the children from 81 to 88, while that for females extends from 81 to 90. Half-breeds of both sexes show lower indices. The Tete de Boule are rapidly adopting civilization, greatest advances having been made on the material side. They accept education eagerly and readily assimilate the French language. Hunting remains the chief occupation, but most aboriginal institutions are in process of decay. Political organization is almost anarchistic. There were formerly hereditary chieftains, but modern leaders are chosen by democratic methods. The chief exercises little control. Each group or family controlled a definite hunting territory, the individual right to possession of the land being a custom of immemorial antiquity. Family territories are generally patrilocal. Examples of the manner of territorial division are offered and a descriptive chart of Tete de Boule landowners is appended.—*C. M. Diserens* (Cincinnati).

800. Davidson, D. S. *The family hunting territory in Australia.* *Amer. Anthropol.*, 1928, 30, 614-631.—It has been supposed, following Morgan, that primitive man lacked the concept of real property ownership. Data are here presented which show that in Australia tribal, family, and individual ownership of hunting territory were clearly recognized. Property was a widely distributed and uniformly characterized institution in the past. Disintegration has occurred because of depopulation through introduction of European diseases, which may have weakened the concept of ownership maintained by larger populations. The family hunting territory system was probably once more widely distributed than reports indicate and is of great antiquity. There is no basis for Morgan's theory that all primitive hunters were devoid of any real property concept.—*C. M. Diserens* (Cincinnati).

801. Dewey, J. *Social as a category.* *Monist*, 1928, 38, 161-177.—Opinions differ as to the status of the social as a principle of philosophic reflection, the majority probably assigning it a value inferior to that of the categories of the physical, vital and mental. Associated or conjoint behavior is however a universal characteristic of all existences, and the social is the supreme example of such associated behavior, so that it has the general characteristic of a philosophic category. Moreover, the social is continuous with and inclusive of the physical, vital and mental. Refusal to recognize the value of the social as a category is due to an unwarranted distinction between the physical and social sciences, as well as to an imperfect conception of the nature of social phenomena. Upon the hypothesis of continuity in the various fields of phenomena the social is philosophically the most inclusive of the categories, and its acceptance enables us to dispose of certain problems arising in connection with the vital and mental categories without introducing mysterious factors. Thus the social exhibits communication as an existential fact, and consequently meaning as a describable empirical phenomena with a distinctive verifiable function. Thus the mental becomes natural and in genetic continuity with the vital and physical, all these being incorporated in the wider scope of associated interactions. Numerous concrete illustrations from philosophy and particularly the sphere of ethics show the clarification effected when the social is employed as a category of description and interpretation. "The social as a category is as important in the critical evaluation of recent systems of thought as it is in direct application to problems of matter, life and mind."—*C. M. Diserens* (Cincinnati).

802. Eichele, —. *Die religiöse Entwicklung im Jugendalter.* (Religious development in adolescence.) Gütersloh: Bertelsmann, 1928.—*A. Römer* (Leipzig).

803. Elliott, H. S. *The process of group thinking.* New York: Ass'n Press, 1928. Pp. 239. \$3.00.—*W. S. Hunter* (Clark).

804. Estabrooks, G. H. *That question of racial inferiority.* *Amer. Anthropol.*, 1928, 30, 470-475.—Interviews with outstanding anthropologists disclose a general agreement that significant racial differences have not been proved, and that existing works bearing on racial intelligence do not establish the inferiority or superiority of any of the groups in question. No convincing distinctions can be reached by historical methods, which moreover do not confirm alleged superiority of Nordics, and the method is valuable only when races rather than cultural or national groups are compared. The same is true of the intelligence-test method, which depends for its value on a correct definition of race. In general, anthropologists have little use for the test method as a method of measuring racial intelligence. They regard linguistic tests as especially deceptive. The historical solution of the problem seems just as satisfactory as any attempt with present intelligence tests. The problem is very complex, and we have not even approached a scientific proof of intellectual superiority of one race over another. Biologists and

anthropologists are here as authoritative as the psychologist. All three must cooperate.—*C. M. Diserens* (Cincinnati).

805. Geiger, M. *Zugänge zur Aesthetik*. (Approaches to esthetics.) Leipzig: Neue Geist, 1928. Pp. 158.—This book combines four papers which are written from a single fundamental point of view. The first paper, *Dilettantism in Artistic Experience*, contrasts the genuine external artistic concentration, in which experience is based upon the perception of the value of the work of art, with the internal concentration in which the individual's own feelings are enjoyed rather than the work of art. The second paper, *Superficial and Profound Influences of Art*, opposes every artistic experience which is satisfied with the arousal of the surface of the ego, while in genuine artistic experience superficial influences and profound influences must work together. In the third paper, *The Psychic Significance of Art*, the various artistic values are analyzed with reference to their psychic effects: the formal values of eurythmies in its function of interpreting the objective world and freeing the presentation from the thing which is presented; the imitative values which make possible a more intense experience than reality can give; the positive vital and spiritual values of that which is offered as the artistic presentation, the influence of which arises from the individual personality. In the fourth paper, *Phenomenological Esthetics*, it is finally brought out that esthetics has developed as an individual science from the analysis of works of art and not from artistic experience or artistic production.—*M. Geiger* (Göttingen).

806. Green, L. S., & Beckwith, M. W. *Hawaiian household customs*. *Amer. Anthropol.*, 1928, 30, 1-17.—The authors offer an account of ancient Hawaiian customs, omens, superstitions and legends relating to the construction of houses, eating, fishing, traveling, and the forecasting of weather. Many of these observances are comparable with similar ones among civilized peoples, and with others typical of the primitive level or peculiar to the Hawaiians.—*C. M. Diserens* (Cincinnati).

807. Grimmer, L. *Emotion and delinquency*. New York: Brentano's, 1928. Pp. vii + 147. \$3.00.—This is a clinical study of the delinquent by a neuropsychiatrist who is inclined to believe that most delinquents should be classified as constitutionally inferior individuals, and that constitutional inferiority is the result of organic inferiority; he places that organic inferiority in the endocrine system. In the introduction the New York definition of a mental defective is discussed. In investigating the etiology of delinquency one chapter is devoted to heredity and one to the pre-puberty period. "It will be seen that what we regard as delinquents were primarily biological products of an improper mating with the resultant transmission of a psychic defect." The author is convinced that delinquency and mental retardation go hand in hand, though mental defectiveness is not a deciding factor in delinquency. The emotions are ascribed a greater rôle as a causative agent than the mental status. Emotional defectiveness is stated as a congenital defect. The author

failed to find the "criminal type" of individual, but did detect the type of the constitutionally inferior. Numerous cases of delinquent girls are cited throughout the text, many of whom came from homes where the parents were foreign-born and could not harmonize with a social organization so much at variance with their own. Another outstanding point is the failure to find economic conditions as a cause of delinquency.—*P. Reeves* (Ohio Institute).

808. Gutmann, B. *Eingriffe in die Zähne bei den Wadschagga*. (Extraction and mutilation of teeth among the Wadschagga.) *Arch. f. d. ges. Psychol.*, 1928, 61, 417-423.—The Wadschagga tribe (Africa) have two peculiar customs. When a child's milk-teeth loosen, the two middle front teeth in the lower jaw are extracted. During adolescence a part of the corresponding upper teeth is filed away so as to leave a triangular space. The reason for these customs is unknown to the Wadschagga themselves, but by an examination of the tribal history the author has discovered how the practice originated. In earlier times a child's fate was decided by the order of appearance of his second set of front teeth. If the upper ones grew in first it was considered a religious necessity that he be killed. The lower milk-teeth were therefore sacrificed in the hope that new teeth would quickly grow in the same place. The filing of the upper teeth represents a "doubling of the motive," or perhaps is to be explained on esthetic grounds.—*D. McL. Purdy* (California).

809. Gutmann, B. *Der Steinahne*. (The stone-spirit.) *Arch. f. d. ges. Psychol.*, 1928, 61, 424-444.—Remarkable healing virtues are ascribed to a certain stone by the Dschagga people of Kilimanjaro. The author draws inferences regarding the origin of this belief.—*D. McL. Purdy* (California).

810. Hamilton, G. V. *Research in marriage*. New York: A. & C. Boni, 1928.—*W. S. Hunter* (Clark).

811. Hamilton, G. V., & Macgowan, K. *What's wrong with marriage?* New York: A. & C. Boni, 1928.—*W. S. Hunter* (Clark).

812. Heller, Th. *Über atypische Sprachentwicklungen*. (Atypical developments of speech.) *Zsch. f. Kinderforsch.*, 1928, 34, 461-467.—The article is a revised form of a lecture which Heller gave on the occasion of the 4th Congress for Orthogenic Pedagogy, April 13, 1928, in Leipzig. The author points out that it is not always easy to determine in the individual child whether one is dealing with a temporary phenomenon in normal speech development, or whether a disturbance of speech, i.e., a pathological condition, is present. Heller further states that speech development in children often takes a very circuitous path. It sometimes happens that a permanent retardation of speech results from so-called atypical development. One dare not, however, immediately place these failures in the development of speech in the category of well-known and adequately described errors of speech and speech defects. Heller regrets that children with atypical speech disorders are often considered mentally retarded. As the best therapy in many cases he recommends

that the child be taken out of his customary environment and placed in the company of several children who speak in a normal manner. This is one instance in which the child is the child's best teacher. As a corrective teacher Heller further regrets that so frequently swaggering children, i.e., children who are pathologically talkative, are taken to be particularly clever by those around them, who do not think to restrain the mistakes of the swaggerer. The author differentiates between the talkative psychopath and the feeble-minded talker. The normal stock of words proves too small for the latter's uncreative stream of talk, so he employs the same phrases and turns of speech again and again. In conclusion the author treats the so-called child of sluggish speech. He wishes the phrase "sluggishness of speech" (*Sprechfaulheit*) would disappear from pedagogical terminology, for a normal child is not sluggish in speech and a child whose speech is sluggish is not normal.—O. Seeling (Berlin).

813. Holdridge, C. P., & Young, K. Circumcision rites among the Bajok. *Amer. Anthropol.*, 1927, 29, 661.—Material traits change more rapidly than do social and psychological traits under the influence of a higher culture. This is illustrated by the persistence of native rites of male circumcision among the African Bajok, whereas a number of material traits have vanished. The present paper gives an account of the ceremony as viewed by an eye-witness. It is at once an ordeal, initiation, and education which boys undergo at puberty. Women and children are kept in ignorance of the ceremonies, which last several days and involve much dancing and drinking. Instruction in tribal lore and matters of sex is given during the period of convalescence, extending over three or four months. During this time a new language and a new name are adopted. Return home was marked by dancing, hilarity and a final practical initiation, after which the boys were endowed with all the privileges of men.—C. M. Diserens (Cincinnati).

814. Hooke, S. H. Diffusionism with a difference. *Amer. Anthropol.*, 1927, 29, 615-624.—The author, who expounds Elliot Smith's point of view, compares American and European usage of the principle of diffusion in the interpretation of culture, in particular contrasting the recent works of Wissler, *Relation of Nature to Aboriginal Man in America*, and of Childe, *Dawn of European Civilization*. Hooke criticizes Wissler's method and results as a misuse of diffusionism, determined by inadequate assumptions and the principle of over-simplification. The works of Childe and W. J. Perry are said to represent proper application of the principle of diffusion to the analysis of culture.—C. M. Diserens (Cincinnati).

815. Hrarbar-Passek, —. Verhältnis der Musikalität zu der Schulbegabung. (The relation of musical ability to general ability in school.) *Psychotechn. Zsch.*, 1928, 4, 115-116.—Careful correlation experiments show a certain relationship between musical ability and achievement in other fields, and seem to indicate that isolated talents are rare.—F. Giese (Stuttgart).

816. James, E. O. Cremation and the preservation of the dead in North America. *Amer. Anthropol.*, 1928, 30, 214-242.—The rites and methods of cremation and preservation of the body are universally associated with particular beliefs and forms of cult, sometimes constituting a characteristic feature of culture or race. The present paper deals with such practices among the tribes of North America. Among widely diffused methods of preservation are evisceration from Alaska to Yucatan. Embalment is almost equally diffused and the preparation of mummy bundles and desiccation is found in Mexico, the Southwest area and Kentucky. Cremation may be partial or total, in which last event the ashes were incorporated in images or effigies, subject to ceremonial treatment and use in rituals. Cremation and preservation are opposed methods of treatment and the origin of the former must be sought in (1) the growing conception of difference between soul and body, facilitated by ceremonial transference of the life of the dead to images, (2) in some cases the necessities of a nomadic existence, (3) the association of fire with immortality. The distribution of cremation suggests that the cremating peoples represent a culture distinct from that of the non-cremating. Cremation probably belonged to one special group of immigrants. Cremation was probably here as elsewhere often associated with the conception that fire, smoke, or incense, carry the spirit to a heavenly ghost world in the sky. The analysis of the data suggests that the practice of cremation grew out of the attempt to preserve the body when the mortal remains came to occupy a position of secondary importance in the attainment of immortality of the soul. A bibliography of nearly 200 items is appended.—C. M. Diserens (Cincinnati).

817. Jamieson, E. & Sandiford, P. The mental capacity of Southern Ontario Indians. *J. Educ. Psychol.*, 1928, 19, 536-551.—A summary of an extended report which is to appear later. Nine intelligence and educational tests were given to large groups of Indian pupils. Median I.Q.'s were: N.I.T., 80; Pintner Non-Language, 97; Pintner-Paterson, 97; and Pintner-Cunningham, 78. These results point to a language handicap on the verbal tests. Sex differences are slight. Monoglots surpass bilinguals except on Pintner-Paterson. There is some indication that I.Q. increases with the admixture of white blood. Indians rank below whites on Ayres-Burgess Silent Reading Test, in writing, spelling, and arithmetic. Both E.Q.'s and A.Q.'s are below normal. Care in drawing deductions from the results is urged on account of the indeterminate influence of environmental factors. Bibliography of 41 titles.—J. A. McGeoch (Arkansas).

818. Kamiat, A. H. Manifestations of the believer's delusion of infallibility. *Social Science*, 1928, 3, 376-384.—The believer identifies the totality of his opinions with truth; he associates or identifies them with morality, law, justice, patriotism, virtue, and other grandiose abstractions. In order that the latter may become intelligible to their users, they are made to acquire concrete shapes through association or identification with creeds, rituals, customs, laws

extant or proposed, conventions, social institutions extant or proposed. In the process, beliefs come to partake of the sacred character both of these objects, in the defense of which they are pressed into service, and of the associated abstractions. Through the conversion of the political issue of freedom of speech into a moral one of good versus evil, the censorial person overrides his democratic scruples. Associating dissident thought with evil, certain that freedom of thought must generate doubt and chaos, and unable to visualize any other result, he is prone to assume that that which is invisible to him is visible to no one; he therefore does not welcome the notion that free discussion may lead to the adoption of orderly methods of progression. The believer tends to define his grandiose abstractions (morality, patriotism, etc.) in a manner that is not permissive of the inclusion of thought and behavior that conform to patterns other than his. His abstractions are narrowly conceived. The delusion of infallibility is an expression of the intellectual narcissism of the believer. Evidence of the tendency toward the assumption of infallible attitudes is furnished by the opposition manifested toward the experimental application of novel or dissenting ideas. The believer is loth to admit that his doctrines, if they have occupied a regnant position, must bear at least a portion of the responsibility for the existence of suffering (e.g., militarism, communism, nationalism). Evidence of the infallibility phantasy is afforded by the tendency to regard dissenters as such in appearance only, as ignorant, as lacking in principle, as mentally inferior, or as aberrant.—A. H. Kaniat (Brooklyn, N. Y.).

819. Kantor, J. R. Can psychology contribute to the study of linguistics? *Monist*, 1928, 38, 630-648.—In the study of language psychologist and philologist must cooperate, since language, as philologists agree, is an activity. Philologists refuse psychological cooperation because traditional psychology has regarded language as an expression of psychic processes. But language must be treated as behavior. Behavioristic psychology can aid philology. The first cooperative contact of the two sciences is methodological. The second task will be the joint solution of concrete problems, e.g., the true nature of words, sentences, and the relationship between ideas and the linguistic elements which express them, also the determination of what are real parts of speech. A reformulation of linguistic psychology on a behavioristic basis implies that language is adjustive action and reveals several current fallacies, viz., that language is an expression of ideas and that it represents a set of symbols. Kantor here indicates a group of problems, the relation of lexicology to grammar, the inter-relationship of linguistic elements, and a number of more circumscribed grammatical problems such as the nature of tense, and of direct vs. indirect speech as subjects for cooperation between the two sciences. Moreover, behavioristic psychology throws light on the classification of speech and shows the inadequacy of organizing language on a formal basis. There are, however, limitations to the conjunction of philological and psy-

chological effort, e.g., the fact that language is formal or conventional while certain linguistic disciplines are purely historical or esthetic; but this does not make all possible cooperation any the less necessary.—C. M. Diserens (Cincinnati).

820. Leaneur, J. W. *Indian legends*. Independence, Mo.: Zion's Printing and Publishing Co., 1928. Pp. 339. \$2.00.—Extracts from the sources and a compilation of newly collected legends, arranged to support the thesis that the Indians of the Southwest and Middle America were of Hebrew descent; thus corroborating the account given in the Book of Mormon.—R. R. Willoughby (Clark).

821. Linton, R. *Rice a Malagasy tradition*. *Amer. Anthropol.*, 1927, 29, 654-660.—A vivid account of the customs, traditions and superstitions connected with rice culture among the natives of Madagascar. Methods of cultivation, harvesting, preservation and utilization are described, and the reputed powers of sorcerers over enemies of rice, as well as domestic religious ceremonies attending harvest, are recorded.—C. M. Diserens (Cincinnati).

822. Linton, R. *Culture areas in Madagascar*. *Amer. Anthropol.*, 1928, 30, 363-390.—Uniformity of culture throughout the island is assumed by most writers on Madagascar, but in reality there are three well-marked culture areas: (1) east coast, (2) plateau, and (3) west coast. The author describes material culture, the features of social organization and religious, magical and mortuary concepts and practices in each of the three areas. Striking variations in the construction and degree of fortification of villages occur from area to area. Certain virtues, e.g., chastity, are valued in the eastern area and ignored elsewhere. Polygamy is general, but less prevalent in certain areas. Ancestor worship characterizes every area, but the degree to which the supreme being is personalized varies. Sorcerers are generally feared, and the belief in non-human spirits, spirit possession, and the efficacy of charms, is prevalent everywhere.—C. M. Diserens (Cincinnati).

823. Loeb, E. M. *Mentawai social organization*. *Amer. Anthropol.*, 1928, 30, 408-433.—The natives of the Mentawai Islands are Malays with a trace of Veddoid influence, the latter giving rise to occasional wavy hair types. The culture is low-grade Malay. There are three types of house: *uma* or communal, *lalep* or family, and *rusuk* or house without an altar. The chief weapon is bow and arrow, the principal decorations tattooing. Fish is the main food. The people believe in nature-spirits, souls and ghosts, but there are no higher gods. Religion is centered about the soul concept. Disease is thought to be the temporary, death the permanent departure of the soul. The soul that leaves the body in dreams and sickness is called the *si-magere*. The soul that leaves at death is called *kettsat*, and turns into the ghost, which is regarded as a malevolent disease bringer, to be avoided and repulsed by fetish sticks. Animals and plants have souls residing in the liver. Back of souls are more fundamental entities, the *kina* or spirits, which are found in all objects. The shaman is the most important man of the community. He is a seer rather than an inspired medium. The prin-

cial religious festivals are the *lia* or family feast and the *punen* or religious festival, which may last months or years. At this festival all work of the people is initiated by a priest. Initiation of youths also occurs at this time. The *punen* probably grew out of the family festival. The kinship system stresses age classes. Personal names are changed frequently because of tabus. Marriage is matrilineal and generally involves a kind of preliminary trial marriage. Every married man becomes an *ukui* or house priest, so that marriage is a kind of sacrament and divorce and adultery are rare.—C. M. Diserens (Cincinnati).

824. Lowie, R. H. A note on relationship terminologies. *Amer. Anthropol.*, 1928, 30, 263-267.—In working out kinship terminologies among various races, the terms "classificatory" and "descriptive" must not be regarded as complementary concepts, but as belonging to different logical universes. The former envisages the singularity or plurality of the kinsfolk designated, the latter considers the technique by which kinsfolk are defined. The logical complement of "classificatory" is "individualizing." The logical complement of "descriptive" is "denotative." Kinship terminologies do not constitute coherent systems, but each is founded on a variety of disparate principles, all of which must enter a complete definition. A wholesale classification of kinship terminologies is not feasible, but would involve a plurality of categories.—C. M. Diserens (Cincinnati).

825. Macleod, W. D. Economic aspects of indigenous American slavery. *Amer. Anthropol.*, 1928, 30, 632-650.—The author offers a classification of types of slavery and the distribution of the institution in aboriginal North America. The various causes of servitude, the rights, duties, and occupations of slaves, and the relation of slavery to the economic stage of aboriginal groups are discussed, and a number of details concerning the indigenous American slave trade are offered. The slave trade was stimulated by the possible economic loss from runaway slaves. The latter were therefore often transported considerable distances, certain tribes serving as middlemen, especially on the northwest coast and in Central America. In the latter region individuals were enslaved for debt and crime, or voluntarily sold themselves into slavery. Slavery sometimes was hereditary, as in Old Mexico. Farther north slaves were generally prisoners of war or captured in raids for the purpose. The slave trade was relatively insignificant in agricultural North America, but on the northwest coast was of nearly as much economic importance as in the United States before the Civil War.—C. M. Diserens (Cincinnati).

826. McLeod, W. C. "Jumping over" from West Africa to South America. *Amer. Anthropol.*, 1928, 30, 107-111.—"Jumping over" or "stepping over" is a widely distributed ceremonial trait occurring in Africa, Polynesia and the two Americas, variously rationalized and connected with a variety of ceremonial complexes. It occurs both with positive aspect, i.e., as a prescribed form, and with a negative or tabu aspect. Examples of both aspects

are cited by the author, who urges further study of its distribution and correlation with sunwise and counter-sunwise movements. He suggests that this trait may be an example of diffusion and may even represent another "paleolithic" religious concept.—C. M. Diserens (Cincinnati).

827. Maltzew, —. Zur Frage der musikalischen Begabungsforschung. (On the question of investigating musical talent.) *Psychotechn. Zsch.*, 1928, 3, 102-103.—Gives a short historical survey.—F. Giese (Stuttgart).

828. Maltzew, —. Absolutes Tonbewusstsein und Musikalität. (Absolute pitch sense and musical ability.) *Psychotechn. Zsch.*, 1928, 3, 111-112.—Experimental results give a very low correlation in regard to absolute pitch but emphasize the importance of the relative musical ear.—F. Giese (Stuttgart).

829. Messer, M. B. The family in the making: an historic sketch. London: Putnam, 1928. Pp. 374. 15 s.—W. S. Hunter (Clark).

830. Morice, A. G. The fur trader in anthropology and a few related questions. *Amer. Anthropol.*, 1928, 30, 60-84.—Morice replies to criticisms which impugn his ethnological statements respecting cremation among the Sekanais Indians of Canada on the basis of contrary statements by early fur traders. A discussion of the distribution and origin of such practices as matriarchy, cremation and scalping throws much light on the psychological characteristics of these Indians, who are characterized by great receptivity to foreign influences. Facts point to a primitive matriarchal régime among the Dené, who were uncultivated, anarchistic, authentic savages, whatever fur traders and theorists relying on such data may say to the contrary. In short, anthropological data founded on fur traders' publications are unreliable. The Sekanais did not practice cremation as a tribe. The receptiveness of the Dené inclined this tribe to adopt foreign practices.—C. M. Diserens (Cincinnati).

831. Mukerjee, R., & Sen-Gupta, N. N. An introduction to social psychology. New York: Heath, 1928. Pp. xv + 304. \$3.00.—The first author is head of the department of economics and sociology at Lucknow University, and the second is head of the department of experimental psychology at Calcutta University. Their textbook applies the principles of objective psychology, with a touch of Freudianism, to the problems of sociology. Attention centers about such topics as the relation of the individual to the group, group behavior, various aspects of culture, leadership, etc. Topics for discussion and a list of selected readings follow each of the twenty-two chapters.—R. G. Sherwood (Stillwater, Minn.).

832. Murphy, J. Primitive man; his essential quest. London: Oxford Univ. Press, 1927. Pp. xiv + 341. \$5.00.—The author sees human evolution as fundamentally a quest for unity, and writes its history in those terms; a foreword by R. R. Marett points out the significance of this concept in support of the psychological theory of the origin of culture as against the diffusionist theory. The

quest proceeds in terms of unifications and differentiations; important examples of unifications are the totemism and exogamy systems, concept formation, socialization of thought, the *mana* concept, religion, reasoning, magic, law; after important unifications have become firmly habituated, exceptions are perceived, leading to temporary disintegration and ultimately the discovery of new unifications; one of the aspects of such differentiations is the fatigue of investigation, leading to social docility and extreme suggestibility. Exception is taken to the formulations of Lévy-Bruhl on the ground of their disregard of the genetic approach, and to those of Freud because of the impossibility of fitting them to the facts. Bibliography of 89 items.—R. R. Willoughby (Clark).

833. Myers, G. C. A proposed program for studying the causes of crime. *J. Delinq.*, 1928, 12, 122-123.—It is proposed to follow in great detail from infancy through life the adjustments of 10,000 unselected individuals. The author has faith that the genetic approach to the study of crime will lay bare much that other methods have failed to disclose.—H. L. Koch (Texas).

834. Nolte, W. *Psychologie für Polizeibeamte. Ein Abriss.* (Psychology for police officers. An outline.) Berlin: Berger, 1928. Pp. 132. M. 3.50. (With an introduction by Commander Heimannsborg, in command of the Berlin police guard.)—As a result of the realization of the democratic ideal in Germany the police have had to develop into a people's police. The police officer is not the superior but the servant of the people. This conception of the attitude of the police demands of each officer an understanding both of the mind of the people and of the mind of the individual man. The aim of the book is to provide the officer with a knowledge of men and a knowledge of how they are to be handled. In the first chapter the basic principles of psychology and its methods are outlined briefly. The second chapter is concerned with the individual person, whose structure, characterology and typology are described with a consideration of the psychopathic personality. The psychology of groups of men is treated in the third chapter. Here the group phenomena of importance for officers, such as mobs, gatherings in confinement, gatherings in the open air, processions and demonstrations, are discussed. The fourth chapter studies the psychology of the large city. In characterizing the large city as an environmental total an attempt is made to outline the field of work which is of particular concern for the police officer. The fifth chapter is devoted to the psychology of police service. Along with a psychology of the employment of the police and the use of force the established facts of most importance for the police officer are discussed. Development of the characterology of the police officer forms the conclusion.—W. Nolte.

835. Ortmann, O. Tonal intensity as an esthetic determinant. *Mus. Quar.*, 1928, 14, 178-191.—Intensity is found to be an extremely important factor in esthetics.—P. R. Farnsworth (Stanford).

836. Parsons, E. C. Notes on the Pima. *Amer. Anthropol.*, 1928, 30, 445-464.—This is an analysis of the Pima relationship system and a comparison of Pima and Pueblo ceremonialism, with suggestions of further useful comparisons of cultures. Lists of Pima kinship terms with their application in genealogical tables are presented in tabular form, and the relations of clan and moiety are established. A discussion of the complex ceremonial rites and of the types, functions and reputed powers of Pima medicine men discloses differentiation of medicine men into disease doctors and doctors for weather, crops, and war. Curing and weather control are distinctive functions, as among the Zuñi. The killing of Pima doctors held responsible for deaths or epidemics is not infrequent. Pima ceremonialists are organized into a mask cult holding public dramatic performances. The writer concludes that "similarities between two cultures must be studied in their integral settings" to be appreciated truly; that "ceremonialism in the Southwest is in each culture a complex of rites distributed outside of the particular culture but coordinated distinctively in it"; and that "knowledge of the distribution of ritual . . . is necessary for understanding the genius of any single Indian culture."—C. M. Diserens (Cincinnati).

837. Perry, C. M. Language and thought. *Monist*, 1928, 38, 211-230.—From Hobbes to Max Müller, writers have insisted on the intimate connection of language and thought, and there is a recent disposition to regard thought as a product of language or to identify partially or wholly the one with the other. A separation and determination of the facts to be explained by the categories of thought and language is a first step in solving the problem of their relationship. Four groups of facts appear: (1) habit formation, (2) capacity to refer to absent objects, (3) awareness, (4) organization in conduct and thought. The behavioristic solution considers merely habit formation by conditioning responses. It is an over-simplification, and fails in considering the relation of language to absent objects. Here the theories of Dewey and Mead stressing anticipation on the basis of symbols, significant in virtue of a complex of connected activities, enter the field but involve unnecessarily complicated machinery. Mead's theory does not satisfactorily explain anticipation of events other than the actions of other individuals. A mechanic anticipates the response of a machine, i.e., does not merely adapt but knows consciously. With respect to the conscious aspect of the problem it is clear that no replacement of one set of movements by another accounts for the presence of meanings. The definition of the relation of substitution probably cannot be made in terms of observable behavior, and may not appear in the conscious field. Meanings, on the other hand, involve integration and consciousness, both neglected by the behaviorist. Organization or integration may be inherent in behavior, whether problem solving or not, but the fact of consciousness remains. Much of our thinking is conscious, while talking may not be. There is no conclusive evidence that consciousness is always consciousness of language or any other

responses. Thought as capacity to modify one's conduct, or as conscious, cannot be completely identified with language.—*C. M. Diserens* (Cincinnati).

838. **Plaut, P.** *Prinzipien und Methoden der Kunstpsychologie.* (Principles and methods of the psychology of art.) *Hand. d. biol. Arbeits.* (Abderhalden, ed.), 1928. Abt. VI, *Method. d. exper. Psychol.*, Teil C^{II}, Heft 3. Pp. 745-966.—This monograph is a general treatment of all the important methods which may serve to clarify the rather difficult field of art psychology. Strictly speaking, there is no such thing as an art psychology having methods even approximating those of the other sciences. The psychology of art is far from being exhausted in a study of the psychology of the art object, for the latter does not, in the last analysis, include the enjoyment of art; it is essential that the psychology of art include two totally different things, i.e., the enjoyment of art and the creation of art, which are in, of, and for themselves two different performances, lying on different planes, and quite incomparable. First is discussed the psychology of the artist, and the methods used are any which express the total personality of the artist. The psychographical method is first taken up, and is defined as that method of investigation of the individual, which (in contrast to biography) starts out from the complexity rather than from the unity of the individual. (Psychographic outlines are reproduced in detail.) The second section under this method deals with the artistic creative process, and the method for studying this process is the autopsychographic, the relation of this method to the former being clear from the name. (Examples of such autopsychographical reports from various types of artists are reproduced.) Third is given the method called psychopathography, which attempts to arrive at the often intimate relation between art and mental derangements. Plaut emphasizes the fact that artistic work correlates neither with mental derangement nor mental soundness, but rather with the configuration of the creating mind, which is rooted in the totality of the personality, be this normal or abnormal. The second group of methods includes those classed as characterological; characterology is discussed first, and then graphology, psychoanalysis, and the method of individual psychology. The third methodological division is the group of methods of applied psychology. The first long section treats of the different kinds of musical aptitudes, methods of experimentation and the various experimental data being reported in detail. Second is considered the esthetic appreciation of spoken forms of expression and of plastic arts, and here also the method of experimentation and its results are given. The experimental results of investigations on the creative ability of children are reported for both literary and graphic ability. The last two sections of the monograph treat of musical experience as a psychophysical problem and the consideration of art from the point of view of an ethno-psychological and sociological problem, respectively.—*D. E. Johannsen* (Clark).

839. **Radin, P.** *Ethnological notes on the Ojibwa of southeastern Ontario.* *Amer. Anthropol.*, 1928, 30, 659-669.—A continuation of a text partially published under the title *Ojibwa-Chitchat* in a previous number. Observations on the naming of children, children's fasts, marriage, death, the preparation of medicine and food, occupational customs, weather prognostication, and dances illustrate a variety of psychological attitudes and incidentally reveal many details of primitive social and industrial technique.—*C. M. Diserens* (Cincinnati).

840. **Riese, W.** *Persönlichkeitsentwicklung und künstlerische Gestaltung. Gedanken und Betrachtungen nach einer Van Gogh-Ausstellung.* (Personality development and artistic creation. Thoughts and considerations upon an idea of Van Gogh.) *Psychol. u. Med.*, 1928, 3, 64-69.—Van Gogh's work as an artist was due to the same tendencies that finally made him insane—the compulsion to make over the world according to principles resting within himself.—*M. F. Martin* (W. Springfield, Mass.).

841. **Rösel, R.** *Die psychologischen Grundlagen der Yogapraxis.* (The psychological basis of Yoga practice.) *Beiträge zur Philosophie und Psychologie* (ed. T. K. Osterreich), No. 2. Stuttgart: Kohlhammer, 1928. Pp. 135.—In the present writing the first attempt, so far as the author knows, is made to present in condensed form the complete Yoga practice, and to show the psychic processes upon which it is based. The study is based on the Yoga texts which underlie the practice, beginning with the retreat from the external world and progressing through certain attitudes to which particular effects are ascribed, to the breathing exercises, which have acquired considerable fame. The practices so far mentioned, however, all belong to lower Yoga, which serves only as a preparation for higher Yoga, whose task it is to attain Kaivalya, absoluteness of the soul, by means of methodic submersion, a "numinous" mental condition which in the later development of Yoga becomes a process of union with divinity. According to the views of Yoga, the possession of magic power and ability is connected with the attainment of this condition. The present discussion employs the results of the new psychology, i.e., the studies of suggestion, hypnosis, the subconscious, religious psychology, and parapsychology, for only with reference to these disciplines can a path be cleared toward an understanding of the numerous mysteries of Yoga. A short discussion of certain modern methods of mental training from the occult movement of the present is added to the treatment of Yoga.—*R. Rösel* (Frankfurt a. M.).

842. **Roth, H. M.** *Vowel tonality.* *Univ. of Iowa Stud.: Humanistic Stud.*, 1928, IV, No. 2. Pp. 67.—Vowel tonality was treated as an esthetic problem. The study was based on the total number of disyllabic words found in Webster's Secondary School Dictionary. It was found that the use of differentiation of vowel sounds is a means of gaining effectiveness in speech. Since the distinguishing characteristics of front vowels is the higher resonance, these vowels can be used most effectively to suggest delicacy and lightness of touch; while back vowels can

be used to better advantage in suggesting greater fullness of meaning. Front vowel sounds are used to denote things that are empty, insipid or insignificant; back vowel sounds are used to describe objects of an awkward, clumsy or cumbersome character. In vowel sequence greater effectiveness can be gained in describing increase of power by proceeding from front to back tonality; while the reverse sequence of proceeding from back to front tonality is more appropriate in subdued descriptions or for purposes of anticlimax.—*B. Wellman* (Iowa).

843. Saalfeld, —. *Das Christentum in der Beleuchtung der Psychoanalyse.* (Christianity in the light of psychoanalysis.) Gütersloh: Bertelsmann, 1928.—*A. Römer* (Leipzig).

844. Schneider, K. *Zur Einführung in die Religionspsychopathologie.* (An introduction to the psychopathology of religion.) Tübingen: Mohr, 1928. Pp. vii + 56. M. 3.60.—Sharp discrimination of concepts, presentation of religious experiences observed in abnormal mental conditions, especially in cyclothymics and schizophrenics (visions, consciousness of missions, revelations).—*A. Römer* (Leipzig).

845. Schumacher, K. *Ein Vergleich der buddhistischen Versenkung mit der jesuitischen Exerzition.* (A comparison of the Buddhistic submersion with the Jesuitic exercises.) Stuttgart: Kohlhammer, 1928. No. 3 of *Beitr. f. Philos. u. Psychol.* Pp. viii + 78. M. 3.60.—Much in common, though the pressure exerted by the Jesuits is distinguished psychologically from the pleasure of the Buddhist monk. Ignatius did not build on an experience of freedom, for which reason he is not to be characterized as a gifted religious man.—*A. Römer* (Leipzig).

846. Schoen, M. *Musical talent and its measurement.* *Mus. Quar.*, 1928, 14, 255-282.—Survey of the Seashore and Schoen music tests.—*P. R. Farnsworth* (Stanford).

847. Seaby, A. W. *Art in the life of mankind.* New York: Oxford, 1928.—*W. S. Hunter* (Clark).

848. Seifert, —. *Psychologie-Metaphysik der Seele.* (Psychology-metaphysics of the soul.) München: Oldenbourg, 1928.—*A. Römer* (Leipzig).

849. Smith, M. G. *Notes on the depopulation of aboriginal America.* *Amer. Anthropol.*, 1928, 30, 669-674.—This is a report based on J. Mooney's unfinished bulletin on the aboriginal population of America. 268 tribal groups are classified in nine geographical divisions in the U. S. and the percentage of increase or decrease indicated. The author of this article presents tables showing the percentage of our aboriginal population surviving in 1907 and the date of the first great disturbance of native culture by Europeans, i.e., the date from which census statistics are first available. Of a total of 268 groups in this country, excluding California, 87 groups were wiped out by 1907 and 67 nearly so. Of a total aboriginal population of 589,000 in the 268 groups, 239,859 belong to groups now extinct. Only 15 groups have held their own or increased in numbers during the historic period. The principal causes for this persistency of some groups were, according to Mooney, mixture with the whites and the incorpo-

ration of other Indians into the tribes.—*C. M. Diserens* (Cincinnati).

850. Stählin, W. *Die religiöse Lage des jungen Menschen.* (The religious attitude of the young man.) 15th publication, *Publ. Acad. Sci., Erfurt, Sect. Educ. & Child Study.* Erfurt: Stenger, 1928. Pp. 22. M. 1.50.—The newly discovered world often hinders a decision, but it can also induce a true religious experience.—*A. Römer* (Leipzig).

851. Starkow, —. *Korrelation zwischen Musikalität, Musikleistung und Begabung.* (Correlation between musical ability, musical achievement, and talent.) *Psychotechn. Zsch.*, 1928, 3, 110-111.—On the basis of experimentally determined coefficients of correlation the author concludes that the evaluation of musical ability must be based on the following data: the comprehension and recognition of a musical whole (besides correlated concentration on the material) relative musical ear, feeling for rhythm, capacity to reproduce melodies, and the gift of auditory-motor combination.—*F. Giese* (Stuttgart).

852. Swanton, J. R. *Sun worship in the Southeast.* *Amer. Anthropol.*, 1928, 30, 206-213.—A variety of designs associated with the Mississippi mound culture are commonly ascribed to sun worship, but little effort has been made to demonstrate the presence of such solar cult in this region. For the benefit of archaeologists an account of traces of sun worship among the tribes of this region is given. A number of sun myths are referred to, and divergent aboriginal religious concepts of the Northeast are cited as a warning against too broad use of a single formula. Conclusions are that belief in a supreme being associated with sun and fire was general among Southeastern tribes and was much more intimate than in the Northeast. Variations appear among the Iroquois, while the Cherokees offer a female solar deity.—*C. M. Diserens* (Cincinnati).

853. [Various.] *Conference on racial differences. (Proceedings.)* Held under the auspices of the Committee on Problems and Policies, Social Science Research Council and the Division of Anthropology and Psychology, National Research Council, Washington, D. C., February 25 and 26, 1928. (Typescript, pp. 80.)—(1) T. W. Todd, *The Search for Specific African Bodily Features*, pp. 10-16: The results of measurements on typical series of negro and white corpses to obtain criteria of race differences are described. The sources of data were bodies of persons available, in medical schools. (2) Franz Boas, *Changes in Immigrants*, pp. 16-21: Three problems relative to the immigrant are offered for examination: (a) how far heredity determines behavior in our country, the need being to study family strains rather than "races" to determine biological influences; (b) how far the change of environment brings about changes of physical form and physiological characteristics, suggesting that similar environments produce similar functioning of different biological strains; (c) what is the effect of the intermingling of immigrants from different parts of the world? This will require two types of research, first, studies of Europeans in different parts of the United States where population has been de-

veloping for years from distinct European stocks, and second, investigation of immigrant peoples at their source. (3) Raymond Pearl, *Incidence of Disease According to Race*, pp. 21-24: The need and importance of group research in comparative racial pathology is explained. The scope of such research would be as follows: (A) A review and digest of all the knowledge and literature on the subject; (B) Special investigations of (a) racial epidemiology and vital statistics, (b) racial pathological anatomy, (c) constitutional analysis of disease by race, (d) racial immunities. (4) W. I. Thomas, *Methodological Experience in the Study of an Immigrant Group*, pp. 24-29: The scope, origin, and uses of source materials in the study of the Polish peasant in America are discussed. These materials resulted in analysis of dissociated personalities of the Poles, explainable largely in terms of three factors, the aristocratic tradition of the Polish nobility, the family and communal tradition of the peasantry, and the disorganizing contacts of the Poles with American lawlessness and industrial life. (5) M. J. Herskovits, *The Role of Social Selection in the Establishing of Physical Types*, pp. 29-36: Social as opposed to biological selection as a process fixing biological type was discussed. Illustrations were varied, but drawn chiefly from studies of the American negro, where skin color is the biological differential upon which selection acts. Questions in discussion were raised implying the need of research upon the problems, (a) how far social selection affects negro migration in America, and (b) what different culture areas in American negro life would reveal as to different types of selection operating. (6) Joseph Peterson, *Problems and Results of Testing Negro Intelligence*, pp. 36-45: The type of mental test which best differentiates inherited differences is one eliminating speed as a factor in the score, and utilizing sustained stimulus to performance during the test. Desirability of a "standard unit" for comparing test results; the many difficulties of racial sampling; the complexity of social factors affecting behavior calling for long-time studies of selected "natural" communities; the need for an experimental as opposed to merely technical proficiency of the testers themselves; the value of coordinated research making clear the operations of social selection upon biological stock, were the matters of importance discussed. General discussion led to the need for more analysis of individual differences before generalizations about race differences were made. (7) Thomas Wootter, Jr., *Varying Negro Culture Traits*, pp. 46-51: Limitations of the statistical approach to the study of culture traits were defined. These were due to discrete qualitative differences in traits to be compared, their variable and unreliable qualities, and their association in clusters, or systems. Cultural trends in negro life are more important for research than any study of culture status. Analysis of culture by the "method of significant group divergence" was offered as a method of equating all cultural variables in compared groups, except those to be studied. (8) *Concluding Session*, pp. 55-80: The session was de-

voted to discussion leading to the adoption of resolutions favorable to future research on problems focussed in the preceding discussions, including a resolution for the appointment of a joint committee of the National Research Council and the Social Science Research Council, for the better coordination of such research.—D. W. Willard (Clark).

854. Wallis, W. D. *Probability and the diffusion of culture traits*. *Amer. Anthropol.*, 1928, 94, 94-106.—Objective methods are desirable in anthropology, but must be critically evaluated and tested. The present article is a critique of the objective method of Clements, Shenck and Brown, for showing special ethnological relationships among Polynesian groups. The method involves too many presuppositions, which Wallis questions on statistical grounds, as well as the inference of relationship where no evidence is extant. The result is a sterile objectivity devoid of value because based on arbitrary analyses of culture.—C. M. Diserens (Cincinnati).

855. Wallon, H. *La mentalité primitive et celle de l'enfant*. (Primitive mentality and that of the child.) *Rev. phil.*, 1928, 106, 82-105.—Using Lévy-Bruhl's book *L'Âme Primitive* as a basis, the author compares the thought of primitive peoples to that of children and adults in the more advanced civilizations. In particular the attitude of the primitive toward himself and toward the objective world is emphasized. The primitive has a very different point of view toward reality and causality from that of the civilized adult. The thought of the civilized child, on the other hand, approaches that of the primitive, although it cannot claim to be identical with it. The article deals with thinking from the logical and cultural rather than the psychological standpoint.—T. M. Abel (Illinois).

856. Willoughby, W. C. *The soul of the Bantu*. New York: Doubleday-Doran, 1928. Pp. 502. \$5.00.—W. S. Hunter (Clark).

857. Yepsen, L. N. *The measurement of social behavior*. *Proc. & Addr. Amer. Asso. Stud. Feeble-Mind.*, 1928, 33, 124-131.—The measurement of personal behavior has been quantified by the use of a scale composed of 75 objective statements of social adjustment. These are grouped under 14 major categories. The scale has been found practical among feeble-minded and delinquents in institutions and in public schools. The total scores differentiate between the well-adjusted and the mal-adjusted. Medians on the basis of 3 surveys and repeated scores on the same children show close agreement. The score furnishes an index of the individual's social adjustment in his own environment rather than in relation to that of the community or of social ideas. Judgment and bias on the part of the person making the report are eliminated. Generalities of statement give way to specific statements concerning the actual behavior of the individual.—M. W. Kuenzel (Vineland Training School).

858. Yoder, D. *Present status of the question of racial differences*. *J. Educ. Psychol.*, 1928, 19, 463-470.—A summary of recent contributions to the problem of racial differences. Three distinct viewpoints are found to be represented: (1) acceptance

of the fact of racial superiority, with an interest in securing additional supporting evidence; (2) racial inferiority considered possible but not demonstrated; and (3) critical skepticism of the means used to demonstrate racial inferiority and of the results; usually, also, an insistence upon racial equality. The literature is summarized under these three headings. In a final paragraph the author says "it may be correctly concluded that the consensus of competent scientific thought, contemplating the inability of mental testers to define intelligence, the inadequacy of all attempts to take such factors as education, social status, and language into proper consideration and the deficiencies of testing conditions, finds no proof of racial inferiority or superiority and eliminates the usual methods of determining such standing from the field of scientific usefulness."—J. A. McGeech (Arkansas).

859. Youtz, P. N. [Ed.] *An outline of esthetics*. New York: Norton, 1928. \$5.00.—W. S. Hunter (Clark).

[See also abstracts 536, 583, 611, 636, 649, 650, 651, 652, 653, 654, 657, 660, 667, 670, 672, 681, 682, 685, 694, 701, 705, 709, 714, 716, 718, 719, 744, 759, 767, 877, 889, 892, 896, 942, 946, 957, 980.]

INDUSTRIAL AND PERSONNEL PROBLEMS

860. Asher, E. J. The association test as a means of determining the relative familiarity of retail stores. *J. Appl. Psychol.*, 1928, 12, 437-447.—112 high school seniors of Austin, Texas, were given an association test to determine the relative familiarity of retail stores. A comparison made between relative familiarity and newspaper advertising expenditure showed that advertising was the most important single factor determining the familiarity.—M. Goodrie (Clark).

861. Bureau of Public Personnel Administration Staff. Suggested tests for housekeeper. *Publ. Person. Stud.*, 1928, 6, 215-218.—For the selection of housekeepers in charge of the care of living quarters, institutional and otherwise, usually with supervisory responsibility for one or more assistants and with salaries from \$1,000 to \$2,500, tests are proposed to include measures of memory for oral directions, knowledge of housekeeping practices and procedures, solution of problems in housekeeping situations, and ability to understand and follow written directions. The tests are in the short-answer and check list forms. Records of education and employment, and of physical condition, are expected to supplement the test material. The battery has not been fully standardized.—K. M. Cowdery (Stanford).

862. Bureau of Public Personnel Administration Staff. Information and data regarding tests in the short answer form. *Publ. Person. Stud.*, 1928, 6, 219-220.—Tests for truck drivers and mechanic: median and distribution of scores of 471 applicants for Milwaukee city service. Tests for auto mechanic:

mean, median, and distributed scores of 124 candidates for employment in Milwaukee. Tests for carpenter: results of tests of 226 testees in Milwaukee indicate too many items of about equal difficulty.—K. M. Cowdery (Stanford).

863. Bureau of Public Personnel Administration Staff. Appraising and rating the employment record. *Publ. Person. Stud.*, 1928, 6, 222-228.—Points out weaknesses in ordinary subjective evaluation of information obtained on application forms and personal interviews. Four reasons given for lack of improvement in methods. Objective rating scheme used by Phoenix Mutual Life Insurance Company in rating prospective salesmen is described as giving values to variations in age, number of dependents, previous income, occupation, type and number of savings and investments, education, membership in organizations, and offices held in organizations. The selection of factors and ratings assigned are in terms of previous experience scientifically determined from company records. Use of rating scheme has resulted in selection of salesmen whose per capita sales have been nine times those of previous staff. Turnover in employees reduced 34%; increases in dividends to policy-holders have also followed.—K. M. Cowdery (Stanford).

864. Bureau of Public Personnel Administration Staff. The method of testing laborers used by the city service commission of Milwaukee. *Publ. Person. Stud.*, 1928, 6, 229-230.—Efficient selection of laborers for different types of service is made possible by classifying the jobs according to their demands for physical strength, literacy, mental efficiency, equilibrium, agility, familiarity with tools and social dependability. For the various types of service each factor receives a different weight in rating individual applicants. Objective tests are used in determining degrees of strength, mental ability, literacy, and familiarity with tools.—K. M. Cowdery (Stanford).

865. Bureau of Public Personnel Administration Staff. Suggested tests for baker. *Publ. Person. Stud.*, 1928, 6, 231-234.—The battery of as yet unstandardized tests suggested for use in selecting bakers for the public service consists of memory test for oral directions using material familiar to bakers; one hundred short-answer form items on baking supplies, equipment and procedure; fifteen true-false statements regarding three given recipes; employment record, and a minimum qualification of physical condition. Sample of the test material is included in appendix.—K. M. Cowdery (Stanford).

866. Giese, F. *Psychotechnik*. (Psychotechnics.) Breslau: Hirth, 1928. Pp. 132. M. 3.50.—This book presents the application of psychotechnics to life in a popular and introductory form. Under *Pupil* it discusses the advising of parents, adolescence, and vocational guidance; under *Apprentice* aptitude tests, trade-sample tests, and the organization of laboratories by the vocational adviser; under *Adult* the hand of the worker, differentiation between the sexes, and prevention of accidents. The last part, *Community*, discusses traffic psychology in London and Berlin, advertising, and the handling of

workers according to Taylor and Ford. Bibliography and table of contents.—*F. Giese* (Stuttgart).

867. Klemm, O. *Eignungsprüfungen an messtechnischem Personal*. (Aptitude tests for the personnel of precision trades.) *Handb. biol. Arbeitspsychol.* (Abderhalden, ed.) 1928. Abt. VI, *Meth. d. exper. Psychol.*, Teil C', Heft 7. Pp. 565-619.—The aptitude tests described in this article are the outgrowth of the tests developed in 1918 for gunners, and can be used for any trade which demands the trustworthy comprehension and repetition of sense perceptions, such as the direction of artillery. The article is introduced by a theoretical discussion of the considerations on which the tests were constructed. The aptitude for precision trades in general is considered under the following headings: (1) attention, (2) immediate memory, (3) complex comprehension performances, (a) rapidity of comprehension, (b) accuracy of comprehension, (c) comprehension perseverance, (4) exactness of hand-movements. The second group of tests is destined for the measurement of aptitude in making precision measurements of light, and is divided into the following tests: (1) test of the functioning of the eye, (a) photopic acuity, (b) binocular vision, (c) scotopic acuity, (d) acuity for colors; (2) measuring ability of the eye; (3) ability to understand pictures; (4) comprehension of rhythms of light. The third group of tests is for the measurement of aptitude in making precision measurements of sound, the tests being considered under the following classifications: (1) test of the functioning of the ear, (a) ordinary auditory acuity, (b) acuity for deep tones, (c) binaural hearing, (d) ability to analyze out soft sounds; (2) comprehension and repetition of irregular rhythms. In each of these groups the tests are described and the method of recording results is given. The fourth section treats of the method of evaluating the individual's total performance capacity, and this proves to be a kind of profile of the performances on the single tests. Since the manuscript was completed in 1919, the author adds a *Nachwort* in which he says that the decade has only impressed him with the rapid progress of work in the field of applied psychology, but has not forced him to change his point of view, since the method of studying capacities by measures of central tendency has come to be emphasized more and more.—*D. E. Johannsen* (Clark).

868. Lipmann, O. *Eignungsprüfungen für Funker*. (Aptitude tests for telegraphers.) *Handb. d. biol. Arbeitspsychol.* (Abderhalden, ed.) 1928. Abt. VI, *Meth. d. exper. Psychol.*, Teil C', Heft 7. Pp. 553-564.—Since telegraphic sending and receiving demand very different mental activities, it appears improbable that the aptitude or lack of aptitude for sending and receiving should be necessarily combined in the same person. The tests are, therefore, divided into sending and receiving tests, and may be classified as an analytic test of the sending ability, an analytic test of the receiving ability, and finally a test of the complex of receiving ability. The tests are described and diagrams of some of the pieces of apparatus are included.—*D. E. Johannsen* (Clark).

869. Plant, P. *Prinzipien und Methoden der Kriegspychologie*. (Principles and methods of the psychology of war.) *Handb. d. biol. Arbeitspsychol.* (Abderhalden, ed.) 1928. Abt. VI, *Meth. d. exper. Psychol.*, Teil C', Heft 7. Pp. 621-687.—The psychology of war is to be observed as well behind the front as at the front; both kinds of psychology can be differentiated from normal psychology, since they are a setting aside of the normal relations of life, both mental and physical. Plant defends his thesis that a war psychology with special methods is possible, on the ground that it is not merely a question of a change in the circumstances, but a very particular kind of change, having characteristic features, and occurring universally. The field of the psychology of war is *a priori* a border field, which needs a special method and point of view. The article then proceeds to develop the methods used and the points of view dependent on them, and finally points out the real problem on the basis of these considerations. The first method discussed is description, the questionnaire method of gaining information being essential (type questionnaire given in detail). The experimental method is discussed, together with the relation between "war psychology" and "military psychology," which are very close to each other. This method is illustrated by a report of the American army test results; the difference in the attitude of the American and German (or any European) soldier is described and the bearing of this on his theory is indicated. The methods used in testing aptitudes of fliers, telegraphers, etc., and the work on the men who suffered brain injuries or psychic disturbances as a result of the war are taken up and the relation between this part of "military psychology" and "war psychology" is indicated. The third method is the collective psychology method; this can be used because war psychology is essentially a situation psychology, i.e., it is an analysis and evaluation of the effect of definite situations which only war produces. The effect of the environment is discussed and a diagram is given to show the interrelationships between the *Aussenwelt*, *Umwelt*, *Mitwelt*, *Inwelt*, and *Gegenwelt*, each concept being discussed separately, both as to its phenomenology and its psychic structure. In the conclusion it is noted that it is impossible to get at the problem of war psychology by a correlation of war and peace, because they are not opposites, but two different situations. Plant ends with the statement that the profession of soldier is a conditional one, for that situation, and only from the standpoint of the situation can one speak of typical behavior. There is no type "warrior" (*Krieger*) and war psychology can therefore be scientifically conceived only from the fundamental assumption of the situation in the frame-work of collective psychology.—*D. E. Johannsen* (Clark).

870. Roels, F. *Discours d'ouverture de la V^e Conférence Internationale de Psychotechnique*. (Opening address of the Fifth International Psychotechnic Conference.) *Meded. u. h. Psychol. Lab. d. Rijksuniv. t. Utrecht*, 1928, 4, v, 1-9.—*F. A. Pattie* (Harvard).

871. Roels, F. *Cultuurpsychologie en psychotechniek.* (Culture-psychology and psychotechnics.) *Meded. u. h. Psychol. Lab. d. Rijksuniv. t. Utrecht*, 1928, 4, I, 77-95.—A general lecture given at the Rotterdam Handelshoogeschool which discusses present tendencies in applied psychology and the relation of psychotechnics to the psychology of culture (in Spranger's sense of the term).—F. A. Pattie (Harvard).

872. Weschke, A. *Die doppelrhythmische Arbeitsleistung.* (The double rhythmic performance of work.) *Psychol. u. Med.*, 1928, 3, 70-75.—Workmen and athletes attain maximum muscular efficiency by rhythmic movements, commonly by a "double rhythm," the effective stroke of the hammer or billiard cue being preceded by taking aim, i.e., making a light movement in the same direction in which the effective movement is to take place. Taylor, who analyzed workmen's movements and tried to reduce the number of movements in the interests of efficiency, left it to the workers themselves to integrate the movements he recommended. Great difficulties were encountered. Rhythmic work is more natural, pleasant, and easy than unrhythmic. The latter part of the article is devoted to a schematic presentation of the relations of consciousness and will. The author differentiates four levels of consciousness, the bodily, the feeling, the intellectual, and the intuitive. At each level, he distinguishes two types of activity, (1) *triebwillensbetont* (instinctive), and (2) *ichwillensbewusst* (conscious).—M. F. Martin (West Springfield, Mass.).

[See also abstracts 553, 621, 669, 773, 949.]

CHILDHOOD AND ADOLESCENCE

873. Abramson, J. *Le profil mental de l'enfant.* (The mental profile of the child.) *Hyg. ment. supplément mensuel de l'Encéphale*, 1928, 23, 138-158.—An account of a profile which requires on an average only 20 minutes of work and which is addressed particularly to physicians for children who have many examinations to make in brief periods of time.—Math. H. Piéron (Sorbonne).

874. Allen, F. H., & Pearson, G. H. J. *The emotional problems of the physically handicapped child.* *Brit. J. Med. Psychol.*, 1928, 8, 212-235.—Twelve case histories, in some detail, of children with severe physical handicaps; seven were behavior problems. The conclusion drawn from the material is that the handicap is a secondary problem, the major adjustment being that to the parents; upon the attitude of the latter toward the handicap depends the child's own attitude toward it.—R. R. Willoughby (Clark).

875. Andrus, R. *An inventory of the habits of children from two to five years, a revision of a publication of 1924, a tentative inventory of the habits of children from two to four years of age.* New York: Teachers College, 1928. Pp. 51.—In this edition the historical and explanatory introduction of 1924 is omitted. After a brief chapter descriptive of the way in which the first categories have been elaborated, revised and checked by a re-

search committee working from actual records of children in action, there is a discussion of the use and value of the inventory to parents and students as a list of activities, habits and reactions of the young child. It is claimed for the inventory that its use may increase the observer's understanding of individual development, since it deals with the child as an organic whole; furthermore, that it is an instrument by which four phases of development may be appraised at once and therefore a valuable supplement to rating scales. Detailed directions for taking objective records and for scoring are given, with sample score sheets and graphs. The inventory itself follows the same four classifications, but is increased by 365 items, due to the fact that the activities listed are more comprehensive and are analyzed in greater detail.—H. M. Johnson (Bur. Educ. Exper.).

876. [Anon.] *Directory of psychiatric clinics for children in the United States.* (2nd ed.) New York: Commonwealth Fund, Div. of Publications, 1928. Pp. vi + 181. \$0.75.—The scope of the publication is limited to organizations regularly accessible to the public and primarily psychiatric. The material is organized by states, inside each state being given the state institutions and mental hygiene organizations and the clinics by cities. Director, hours, staff and brief history, including number of new cases served last year, are presented for each clinic.—R. R. Willoughby (Clark).

877. Barschew, —. *Das Schaffen des Kindes und die Musikalität.* (The creative child and musical ability.) *Psychotechn. Zsch.*, 1928, 3, 113-115.—Offers examples which show the significance of creativity in the case of talented children.—F. Giese (Stuttgart).

878. Blanchard, P. *The child and society. An introduction to the social psychology of the child.* New York: Longmans, Green, 1928. Pp. xi + 369. \$2.00.—This book provides a text treating the social experiences of the child. The child must learn how to behave in social situations as it learns to use language. The former is of greater importance than the latter from the standpoint of survival and social adaptation. Part I deals with the forces that participate in the process of socializing the child. Part II considers the problems of child failures in socialization. Material gained by the author in direct contacts with children in schools and child guidance clinics is presented. The appendix includes selected topics for report and discussion based upon the chapter headings, together with selected lists of readings.—L. W. Gellermann (Clark).

879. Bühler, C. *Kindheit und Jugend. Genese des Bewusstseins.* (Childhood and adolescence. Genesis of consciousness.) Leipzig: S. Hirzel, 1928. Pp. 307. Rm. 10.—In contrast to the previous monographic work on the psychology of childhood, in the writing of which Karl and Charlotte Bühler have had a special share, the attempt is made here to depict and analyze in all its phases the complete development of the human being. The purpose of the book is to show how activity in the various stages of life from 1 to 19 years of age is constituted.

Through turning towards some things and away from others, through reception and rejection, learning and imitation, the conquest of circumstances and operations and performances are acquired. Stimuli activate from within as well as from without, and activity is ever fed anew out of the relations with people and out of intercourse with things and materials until it reaches the maturity of development.—*P. Plaut* (Berlin).

880. **Cornil, L., & Goldenfoun, Z.** *Sur les reflexes associatifs chez les enfants anormaux.* (On the associative reflexes in abnormal children.) *C. r. Soc. biol.*, 1928, 99, 408-409.—The work deals with comparisons of the ways in which children of a different degree of mental development react to associative reflexes. Four subjects were chosen: two were arrested, one was an imbecile, and the fourth was a complete idiot. It was found from these experiments that there were considerable differences in the associative reflexes, quantitatively as well as qualitatively, in children of different degrees of development, and that the rapidity of the formation of associative reflexes in abnormal children was proportional to the degree of the child's state of arrest, while the localization and the duration of conservation of the reflexes obeyed an inverse law.—*Math. H. Piéron* (Sorbonne).

881. **Burnside, L. H.** *Coordination in the locomotion of infants.* *Genet. Psychol. Monog.*, 1927, 2, No. 5, 283-372.—The author proposed to study the coordination of limbs and body postures and the sequence of movements involved in the development of human progression, more particularly in those stages of progression which precede walking. The method employed for obtaining the data was that of making motion pictures of the child during progressive movements. Nine normal infants, six to eighteen months of age, were studied, four boys and five girls, together with one adult woman, one fourteen-year-old girl, one dog and one cat used for comparison. Tentative conclusions are: "There is a rhythm of growth in the development of the characteristically human mode of locomotion which manifests itself in typical stages of progression. I. In crawling, the abdomen is in contact with the supporting surface, while the body is pulled along by the arms only, nearly simultaneous, with the legs dragging. Many asymmetrical movements are made. Somewhat later the arms begin alternate action and the legs come into use. Both legs may be used simultaneously, or nearly so, or only one leg may aid in progression, the other dragging. However, hitching, rolling, or some other crude form of locomotion may occur as the first mode of progression. II. In creeping, the posture is changed to hands and knees, the trunk being carried free above the floor. Cross coordination of limbs is beginning. The movements are frequently arrhythmic. Later, cross coordination seems to be completed, but only one limb is moved at a time. The movements are now rhythmic. Still later, the diagonal limbs move together for part of the time of the movement. In some cases diagonal synchronism of movement develops but this holds only partly true. III. In walk-

ing, the posture is erect with weight borne on the two feet. There is a rhythmic alternation of the two lower limbs as each in turn becomes the supporting limb. Throughout the entire cycle the head is carried sufficiently erect to enable the child to survey the field that lies before him. There are significant age differences in the development of any of the above types of locomotion. . . . No definite sex differences were observed in this study. . . . Finally, the individual differences are very great. . . . There is no evidence in this investigation that a child may go from a sitting posture to walking without any of the intervening types of locomotion." There are numerous tables and cuts and individual case descriptions. A bibliography of 23 titles is included.—*L. M. Harden* (Clark).

882. **Cruchet, R.** *The intelligence of the normal child.* London: Kegan Paul, 1928.—*W. S. Hunter* (Clark).

883. **Davis, R. A.** *Sex differences among orphan children.* *J. Delinq.*, 1928, 12, 133-143.—1,051 orphanage children (527 girls; 524 boys) were given the Dearborn Group Intelligence Examinations, Series I and II, and the Haggerty Intelligence Examinations, Delta 1 and 2. No significant difference in the intelligence of the sexes was found. On the other hand, among a group of unselected school children of corresponding age the girls rated superior. The author thinks that the difference in the mental-test standing of the sexes in the two groups may be due to the fact that the orphanage group, being generally retarded, contains few girls who are maturing physiologically and hence exhibiting an adolescent mental spurt, whereas the public-school group, being relatively superior, contains many who are maturing.—*H. L. Koch* (Texas).

884. **Franck, P.** *Das schaffende Kind.* (The creative child.) Berlin: Stollberg.—This book is based on cases of children in the state art school directed by the author. It shows that children that are not selected according to capacity can be developed into independent, creative individuals. Penetration into the soul of the child will discover creative forces which are different according to age, sex, country and environment. The aim is not to make artists out of children, but to form human beings who create instead of merely following directions. This road is easily followed in art, which teaches us that the creative impulse is most fertile when inhibitions are absent. On the other hand, art is also closely connected with craftsmanship, material, and purpose. These things can be taught, but art cannot. "All theory is grey" in comparison with the colorful reality of art; accordingly the book contains a great number of pictures of objects created by children.—*P. Franck* (Berlin).

885. **Gaupp, R.** *Psychologie des Kindes.* (Psychology of the child.) Leipzig: Teubner, 1928. Pp. 195. M. 3.00.—*W. S. Hunter* (Clark).

886. **Gesell, A.** *Infancy and human growth.* New York: Macmillan, 1928. Pp. xvii + 418. \$3.50.—A study of growth during the first two years. The data were secured from periodic and comparative

examinations of individual infants in a guidance nursery. Part I deals with the mechanics of observation. A specially constructed 16-mesh wire screen permits an observer to observe the entire field of the nursery without being seen by the infants. An interchangeable and interadjustable observation compartment permits of the observation of the more rangy and freer body adaptations of the child. A clinical crib, adjustable in many directions, is especially adapted to the needs of photographic research. A complicated observational dome makes possible the concealment from the view of the infant of the photographic operator, as well as standardized and flexible control of the cameras, of which two are still and two cinema. Specimens of the photographs obtained are shown; among these are several pairs of simultaneous photographs. The comparative method is employed in clinical observation. A developmental survey was made of 9 age levels. Pairs of infants from adjoining levels were observed and compared serially as to behavior. From this and related studies an infant development schedule was constructed, giving normative summaries for each age level. Part II gives findings from developmental studies of over 100 infants. The main point of this section is that inherent maturation factors determine the tempo of development. This point is evident in all the genetic patterns presented for illustration. Growth trends are shown for individuals classed as normal, retarded, superior, mongolian; for individuals prematurely and postmaturely born; for those showing glandular or nutritional defect. Hemihypertrophy is discussed as having a bearing on embryonic conditions which determine normal bodily and mental development. The developmental consequences of twinning are discussed. A drawing developmental index is considered useful as an indicator of the degree of psychomotor development. Motor theories of mental development are criticized. Part III which deals with the significance of infancy, is semi-historical and speculative and presents numerous miscellaneous facts. It gives what might be called a survey of infancy, animal and human. It raises the question of heredity *vs.* environment, and deals with concepts of growth potency and maturation. The last few chapters amplify the idea that growth yields to measurement and prediction.—*M. Goodrie* (Clark).

887. **Homburger, A.** *Vorlesungen über Psychopathologie des Kindesalters.* (Lectures on the psychopathology of childhood.) Berlin: Springer, 1926. Pp. xix + 852.—As a basis for clinical psychopathology there is first a discussion of the relations of contemporary psychology with its various trends and problems to clinical and general psychopathology. The introductory chapters deal with development, learning, association, action, psychological structure, rhythm and dynamics of movement, intelligence, emotional and volitional life, influence of the milieu, and conflict. The clinical part discusses feeble-mindedness, psychopathic constitution, the epilepsies, the organic dementias. A special part is devoted to the psychology and psychopathology of adolescence. Each part is supplemented by case histories from the

author's practice during the last 20 years. The therapy of congenital feeble-mindedness is treated in special lectures on therapeutic pedagogy, prefaced by an outline of its history. The therapy of other abnormalities is added to the separate presentations, as in stuttering, enuresis, epilepsy, and psychopathic personalities. The classification of the latter is largely psychological as far as this is possible at present. Juvenile delinquency, child welfare, and juvenile laws are treated on the basis of German conditions. The problem of milieu and aptitude is treated in connection with a discussion of the present state of characterology.—*A. Homburger* (Heidelberg).

888. **Isaacs, S. B.** *The mental hygiene of the pre-school child.* *Brit. J. Med. Psychol.*, 1928, 8, 186-193.—The author is concerned in the present paper only with certain difficulties in the way of effective prophylactic work with small children. One of the most important is that of the recognition of the incipient neurosis; a child may be very young, but his neurosis well matured; and it is usually only such who can be recognized as ill by even intelligent parents, by whom the diagnosis must in the great majority of cases be made. Complicating obstacles are that neurotic symptoms are frequently welcomed as evidencing commendable behavior, and that parents are extremely reluctant to admit the presence of anything "mental." Something is known both of the subjective and of the environmental components of neurosis, but of the relationship between them we are almost wholly ignorant; the rather optimistic pronouncements of investigators who emphasize the external factors are therefore too simple to be wholly sound.—*R. R. Willoughby* (Clark).

889. **Lascaris, P. A.** *L'éducation esthétique de l'enfant.* (Esthetic education of the child.) Paris: Alcan, 1928. Pp. 508. 50 fr.—The author asks whether esthetic education corresponds to the nature of the child. He investigates first of all the limits of the childish dispositions, and tries to find the meeting-place of the heterogeneous and the homogeneous not so much in the esthetic judgments of the child as in the relation within himself of invention to imitation, examined from the point of view of play. He deals with creative imagination and the technique of the arts and with apprenticeship. After having discussed the history of the renaissance of esthetic education, the author takes up the child's esthetic dispositions and the modalities of these dispositions in play and in art. He then studies the question of what can best be brought to the support of this education, the problem of manner of education, and the question of what conditions of environment are the most favorable for the undertaking of this education. A bibliography of more than 450 references concludes the work.—*Math. H. Piéron* (Sorbonne).

890. **Lehman, H. C., & Witty, P. A.** *A study of play in relation to intelligence.* *J. Appl. Psychol.*, 1928, 12, 369-398.—The Lehman Play Quiz was used on groups of subnormal (I.Q. of 93 or less), normal (I.Q. of 94-106), and relatively superior (I.Q. 107-163) children. The children were asked to indicate the play activities in which they had en-

gaged during the previous week, the 3 activities they liked best, the one to which most time was given, and those in which they had engaged alone. The bright children were less interested than the dull children in motor, religious, and social activities; the dull were less interested than the bright in those activities which required reading and in those which require a sense of humor.—*M. Goodrie* (Clark).

891. **Lincoln, E. A.** *Sex differences in the growth of American children.* Baltimore: Warwick & York, 1927. Pp. xii + 189. \$2.50.—The work is a compilation, with slight additions of original material, of the principal results to be found in the literature. The findings are the standard ones: there are some real differences in physiological development; there is nothing demonstrable in general mental ability or in variability; girls usually succeed somewhat better in school, and there are real differences in specific school subjects, some favoring each sex; educationally the problem is of little significance, since individual differences are so great as to obscure even maximal sex differences.—*R. R. Willoughby* (Clark).

892. **Néron, G.** *Le vagabondage infantile; étude statistique de 250 cas.* (A statistical study of 250 cases of juvenile vagrancy.) *Hygiène ment.*, 1928, 24, 214-222.—Social causes (lack of harmony in the family, failure in supervision over children, etc.) explain only 20% of the vagrancy cases. 80% come from psychiatric causes, among which character disorders represent 50.2% and feeble-mindedness accounts for 19.24%. A bibliography concludes the study.—*Math. H. Piéron* (Sorbonne).

893. **Simoneit, M.** *Die seelische Entwicklung des Menschen.* (Mental development in man.) Berlin: L. Oehmigke, 1928. Pp. 390. M. 9.50.—Observations on child development for the first three years, compiled by the diary method.—*R. R. Willoughby* (Clark).

894. **Syndicat National des Instituteurs et Instituteures de France.** *Les jeux des enfants.* (Children's games.) *C. r. de la 51ème session de l'association française pour l'avancement des sciences.* Constantine, 1927, 594-597.—The article summarizes an investigation made on children's games: the influence of the seasons on play, the origin of games, their succession, the influence of recent employment or of ancient deeds of the region on the local games, etc.—*Math. H. Piéron* (Sorbonne).

895. **Szuman, S.** *Obserwacje dotyczące tak zwanego synkretycznego spostrzegania u dziecka.* (Observations related to the so-called syncretic perception of the child.) *Polskie arch. psychol.*, 1927, 11, 3-16.—Two infants were placed in situations in which their reactions to the whole or part could be observed. They were watched over a period of time. The author reports the results of this investigation and then gives a general discussion on the subject of global and syncretic perception. He takes into account the methods employed by some of the great artists in producing syncretic effects.—*T. M. Abel* (Illinois).

896. **Tobias, N.** *A study of syphilis among one thousand cases of juvenile delinquency.* *J. Delinq.*, 1928, 12, 188-192.—1,000 juvenile delinquents (459 girls; 554 boys; 676 whites; 324 negroes) were examined for venereal diseases. 14.2% of the group had syphilis, 6.7% gonorrhea. The girls were more heavily infected than the boys, and the negroes than the whites. The incidence of syphilis was highest among children over 15 years of age. 57.4% of the cases of syphilis were acquired, 40.6% congenital. It is concluded as a result of a comparative study of the incidence of congenital syphilis among delinquents and non-delinquents that this form of the disease does not play an important rôle in the production of delinquency. The fact that acquired syphilis is relatively frequent among delinquents is attributed to their immorality.—*H. L. Koch* (Texas).

897. **Wittels, F.** *Die Befreiung des Kindes.* (The emancipation of the child.) Stuttgart, Berlin, Zürich: Hippokrates-Verlag, 1927. Pp. 258. M. 5.—The author introduces his book by the statement that the mind of a child is not, like his height or weight, simply a fractional part of the adult's, for the child is a different being, and the investigation of his feelings is difficult, since as adults we have forgotten how we felt as children. Asking children questions is not very fruitful, for neither question nor answer is understood. Wittels claims that children are treated as barbarians and advocates a reformation; although they must be protected, this should be done as little as possible and so as to be as unnoticed as possible. The first chapter discusses the essentially instinctive nature of the child, the gradual, natural development of language as dependent on the natural movements of the mouth already trained for sucking, and the interpretations placed on such sounds by adults. The second chapter treats of children's lies and their causes. Other chapters consider the child's ego, his uncertainty and doubts concerning the ordering of his universe, and his instinct for investigation. Then follow chapters which are concerned with the treatment of the child, —guilt and punishment (from Rousseau's point of view chiefly), a child's relations to his parents, including also the matter of sexual instruction, the parent's relation to his child, the matter of a child's room and the ordering of his daily life, a child's self-defence (including obstinacy, fantasy, play, fairy-tales, and religiousness), the position of orphans and step-children, the problems of children of divorced or unmarried parents, and types of schools. In conclusion the author observes: "Leave your children in peace. Don't educate them, for you can't educate them. It would be better should teachers write a thousand times in their school-books: 'I should leave the children in peace,' than that they should have the children write, 'During instruction no one may talk!'" The century of the child is much discussed. But that will not arrive until adults understand that children have less to learn from them than they from children.—*D. E. Johannsen* (Clark).

898. **Woodrow, H., & Bemmels, V.** *Overstatement in third-grade children.* *J. Appl. Psychol.*, 1928, 12, 404-417.—An overstatement test, composed

of an "assertion" test and an "execution" test, was given to 271 children in third-grade classes. The data secured were the children's overstatement scores (secured by dividing total number of subject's assertions by total number of successes in execution test; average correlation with M.A. + 0.29, with C.A. as a whole, + 0.03); teachers' character rankings (average reliability coefficient + 0.69; average correlation with M.A. + 0.25, with school achievement, + 0.37); validity coefficients (average, + 0.50— with M.A. constant, + 0.48; with achievement constant, + 0.44). The Brown-Spearman reliability coefficient for the test was + 0.71. The average correlation between achievement and M. A. was + 0.40, between achievement and overstatement, + 0.39.—*M. Goodrie (Clark)*.

[See also abstracts 581, 599, 620, 673, 730, 732, 749, 798, 802, 812, 855, 944, 946, 964.]

EDUCATIONAL PSYCHOLOGY

899. Anderson, J. P., & Jordan, A. M. Learning and retention of Latin words and phrases. *J. Educ. Psychol.*, 1928, 19, 485-496.—The retention of English equivalents of Latin words and phrases by 30 seventh-grade pupils has been tested immediately, after one day, one, three and eight weeks. It is concluded that the forgetting curve for English equivalents is less abrupt than that for nonsense syllables, and similar to that for poetry. After two months only one-half of the meanings were retained. The materials used stand in the following order with respect to per cent of recall: (1) identical words; (2) associative words; (3) idioms and phrases; (4) non-associative words. Immediate and delayed recalls correlate highly, especially at the extremes; and both immediate and delayed recalls correlate to a fairly high degree with intelligence. Silent reading ability correlates with both recalls, while word knowledge does not.—*J. A. McGeoch (Arkansas)*.

900. Anderson, M. L. Essential characteristics of the type of education best adapted to the needs of the mental defective. *T. School Bull.*, 1928, 25, 97-106.—We must provide a situation in the school system and in each community which will be favorable to teaching those of low mentality what they are capable of learning. Better facilities for teaching such children will come when we draft more adequate programs of work. In the special schools of Newark, (N. J.) the training is organized under the five heads: (1) academic subjects; (2) activities; (3) industrial values; (4) social habits; (5) personal habits. Tentative courses of study have been worked out and are being used for the first and second topics. Administrative problems are also discussed.—*E. M. Achilles (Columbia)*.

901. Averill, L. A. The hygiene of instruction: a study of the mental health of the school child. Boston: Houghton Mifflin, 1928. Pp. xiv + 386. \$2.00.—An account of the aims, techniques, and accomplishments of mental hygiene as applied to the school child. Many familiar principles and procedures of education are stated, but from this newer

standpoint. "Integrated personality" is the objective; "prevention" is the slogan. Right schoolroom attitudes and methods of performance are fundamentally necessary. Such factors as fatigue and fatiguability, length of class periods and recesses, the matter of comfortable surroundings, etc., should be given due consideration. Mental health has a physical basis which must not be overlooked. On the psychological side, the part that habits and conditioned reflexes play is very important. There is a hygienic necessity for recognizing and adjusting special types of children—the mentally deficient, the gifted, the problem child. The various school subjects should always be taught from the standpoint of mental hygiene. Study methods and objectives should be clear to both teacher and pupil. Unfortunately the home is a frequent source of mental conflict. "The new education" and "the new teacher" are finally discussed by the author, and there is a closing chapter on the child-guidance clinic.—*D. H. Yates (San José State)*.

902. Baerwald, P. F. Lincoln School as a pupil sees it. *Teach. Coll. Rec.*, 1928, 29, 65-68.—An address delivered at the commencement of the Lincoln School of Teachers College by a senior.—*H. H. Remmers (Purdue)*.

903. Baldwin, B. T. The educational growth of elementary school children. *J. Educ. Psychol.*, 1928, 19, 521-535.—The Stanford Achievement Test scores of approximately 2,500 children, from Divisions IIA to VIA in five Cleveland schools, over a three year period are analyzed. Median composite scores are higher than the test norms, but approach them more closely in the higher grades. Schools and grades maintain their relative standing throughout the three years. Consecutive three-year records are obtained for 782 children. These records show a wide distribution of yearly increment of scores; insignificant sex differences; some profit from successive testings; standard errors of estimate which are well within one year's educational growth and which are little affected by the interval between tests; a relatively greater increment for pupils whose E.A. is higher than their C.A.; and that successive testings furnish a good insight into the educational growth of these grades.—*J. A. McGeoch (Arkansas)*.

904. Banker, H. J. The practical application of the student's ability index. *J. Educ. Res.*, 1928, 18, 282-289.—Percents for different values of the student's ability index are worked out for the school grades of 508 pupils. The author believes that the system of calculation which he describes will be an aid in checking the marking system in any school or school system.—*S. W. Fernberger (Pennsylvania)*.

905. Beik, A. K. The relation of the class room success of children in college preparatory courses of the high school to their rate of progress in the elementary school. *J. Appl. Psychol.*, 1928, 12, 429-437.—Information was secured before the admission of pupils to Milne High School as to their rate of progress during elementary school, with a view to determining whether it was related to success in high school, especially during the first year. It was found that a record of normal progress in the ele-

mentary school promised more in the way of high school success than retardation, but less than acceleration. The author gives suggestions concerning the use which might be made of progress records.—*M. Goodrie (Clark)*.

906. **Bott, E. A.** Teaching of psychology in the medical course. *Bull. Asso. Med. Coll.*, 1928, October.—A discourse on (1) the purposes which psychology should serve in a medical course, (2) the pedagogy of presenting psychology to medical students, (3) the relating of psychology to the work of other departments, (4) the place of psychological experiment in the medical course, and (5) a resumé of the plan of teaching in operation at Toronto.—*R. G. Sherwood (Stillwater, Minn.)*.

907. **Bridges, J. W.** Psychology in medical education. *Canadian Med. Asso. J.*, 1928, 18, 382-387.—A discourse on the point of view and the content which would be desirable in psychology courses to be taught to medical students.—*R. G. Sherwood (Stillwater, Minn.)*.

908. **Brooks, F. D., & Bassett, S. J.** The retention of American history in the junior high school. *J. Educ. Res.*, 1928, 18, 195-202.—Report of the rate of forgetting American history by 495 students of grades 7 and 8 of several public schools in Baltimore. The children were tested after the close of the school term at 4-week intervals up to 1 year with a test blank developed by the second author, part of which is given. The results show that in a year's time 23% of the American history which they knew at the close of a semester is forgotten. The forgetting is more rapid at first.—*S. W. Fernberger (Pennsylvania)*.

909. **Broom, M. E., & Fox, G. F.** Predicting success in first semester college social science. *School & Soc.*, 1928, 28, 689-690.—The measures whose predictive value was tested were: (1) the average grade point per unit of credit in high-school social science; (2) the number of years spent in the study of social science in the high school; (3) the total score on the Thorndike Intelligence Examination, Series 1925-1926; and (4) the decile rank attained on the reading section, as well as (5) the decile rank attained on the trade-information section of the latter instrument. None of the measures is suitable for accurate prediction, since the correlations of the five with the average grade point per unit of college social science ranged from .089 to .266.—*H. L. Koch (Texas)*.

910. **Brouillette, J. W., Foote, I. P., Robert, E. B., & Terrebonne, L. P.** A comparative study of the school progress of foreign-speaking and English-speaking children in the early elementary grades. New York: Scott, Foresman, 1928. Pp. 64.—Part I of the book presents "data based on the results of standardized achievement tests, age-grade data, grade-progress data, and opinions of superintendents, principals, and experienced primary teachers" which "reveals a language handicap on the part of French-speaking children which has not been specially provided for in the procedure currently used in teaching beginning reading in the Louisiana schools." "Every effort was made in the study to equalize con-

ditions surrounding the English-speaking and French-speaking children on whom comparative data were compiled." Part II contains data which indicates that a "more effective procedure has been found." Reference is made to a manual by the same authors in which the new procedures are outlined.—*L. W. Gellermann (Clark)*.

911. **Bruene, E.** Effect of the summer vacation on the achievement of pupils in the fourth, fifth and sixth grades. *J. Educ. Res.*, 1928, 18, 309-314.—The Stanford Achievement Test was given to pupils in these grades in a Los Angeles school. The results indicate that, during the summer vacation, there was a loss of approximately six school months. The amount of loss varies for the different school subjects.—*S. W. Fernberger (Pennsylvania)*.

912. **Bruneau, C.** L'École publique et le milieu. (The public school and its environment.) *C. r. de la 51ème session de l'association française pour l'avancement des sciences*. Constantine, 1927, 587-590.—The school is still considered too much as an abstraction rather than as a living thing placed in a characteristic environment. No account is taken of the differences of province and almost of race which are found in the various school children, and the crowded school of the suburbs is made to follow the same program as that of the small school on a remote mountain side. The author thinks that the instruction should be closely linked with and adapted to the environment in which the students live and are recruited.—*Math. H. Piéron (Sorbonne)*.

913. **Burch, M. C.** Determination of a content of the course in literature of a suitable difficulty for junior and senior high school students. *Genet. Psychol. Monog.*, 1928, 4, No. 2-3, 165-332.—By means of objective tests the author of the study has attempted to determine the answers to the following questions: (1) To what extent do the selections deemed suitable for literature study differ from one another in difficulty? (2) To what extent do the students of the secondary schools differ in their ability to understand these selections? (3) What degree of difficulty in literature constitutes optimum material for a group of students having a given amount of comprehension ability? Three tests were devised, each with two forms; these were made up of short samples taken from books recommended for use in secondary schools and were designed to measure the accuracy with which certain types of literature were read. The samples of Test I represent types of literature whose main interest is action and event, those of Test II represent character portrayal and emotional appeal, while Test III represents intellectual appeal. Scores on these tests were obtained from more than 500 students of Grades 7 to 12. On the basis of the scores made in each test the students of each grade were divided into four groups. The percentage of correct responses for every sample made by each group of each grade was accepted as the percentage of accuracy with which a given group read the book from which the sample was taken. On this basis the books represented in each test were ranked in order from easy to difficult. Results show that the four groups of a single grade are farther apart in comprehensive

reading ability than are the averages of each of the five grades. Using the difficulty of the material which a student voluntarily reads as the criterion of suitability, it was found that 80% of voluntary reading among junior and senior high school students is chosen from books which they read with an accuracy ranging from approximately 60% to 90%, with a median at 75%. The author believes that reading assignments should be made within this range if the objectives of the literature courses are to be realized. A study of the accuracy with which each ability-group of a grade reads the books represented by the tests indicates that the books which at present are found with great frequency in each grade are too difficult for all but the highest one-fourth of that grade.—*L. M. Harden* (Clark).

914. Carmichael, A. M. Moral situations of six-year-old children as a basis for curriculum construction. *Univ. of Iowa Stud.: Stud. in Educ.*, 1927, 4, No. 6. Pp. 104.—Reports upon the behavior of 326 six-year-old children in situations in which they did some act of good or bad social moral behavior were made by persons who were naturally in the environment of the children, such as parents, older siblings, maids or other persons living in the home, and school teachers. Observations were made according to a set of prepared instructions. The results were tabulated according to the frequency of the moral issues and the responses of the children. The author concludes that if the curriculum is to be related to life, the child must be prepared to meet as adequately as possible such situations as the data illustrate. With reference to the problem of whether the curriculum should throw its emphasis upon preparation for adult life or for child life, "the data furnish ample evidence that there are moral principles which are quite common to both adult and child life." Indirect instruction does not contribute to the solution of many of the moral problems arising.—*B. Wellman* (Iowa).

915. Clark, B. E. The effect upon retention of varying lengths of study periods and rest intervals in distributed learning time. *J. Educ. Psychol.*, 1928, 19, 552-559.—The influence upon the retention of sonnets of four different distributions of learning time is studied. The distributions are: (1) four learning periods of 7½ minutes each with rest intervals of 48, 48, and 72 hours; (2) four periods as in (1) with rest intervals of 24, 48, and 96 hours; (3) learning periods of 15, 8, 5, and 2 minutes with rest intervals as in (1); (4) learning periods as in (3) and rest intervals as in (2). Twenty-one days after the test at the close of practice a recall was taken. The conclusions are: (1) "The duration of the learning periods has more influence on retention than the duration of the rest intervals"; and (2) "Study periods with lengths decreasing in a geometric progression, when compared with study periods of equal length, reduce considerably the rate of forgetting."—*J. A. McGeoch* (Arkansas).

916. Cornell, E. L. Why are more boys than girls retarded in school? I. *Elem. School J.*, 1928, 29, 96-106.—Children referred to the Educational Measurements Bureau of the New York State Department of Education are usually seriously retarded

in school progress; many are mentally retarded also. Almost 70% of 749 pupils examined over a three-year period are boys. The 749 cases are analyzed in the following respects: (1) sex differences in age-grade status, (2) sex differences in mental age, as determined by the Stanford-Binet and performance tests, (3) sex difference upon parts of the tests, (4) sex differences in trait estimates, (5) sex differences in attitude toward school. This article deals with items 1 and 2 only; a second article will appear dealing with items 3, 4, and 5.—*P. A. Witty* (Kansas).

917. Cutright, P., & Brueckner, L. J. A measurement of the effect of the teaching of recreational reading. *Elem. School J.*, 1928, 29, 132-138.—Certain factors pertaining to the recreational reading of children in the Minneapolis schools are discussed. "... Availability of books is an important factor in determining the extent to which books are read. However, the data presented suggest the fact that the teacher can do much to influence the outside reading of the pupils. ... The mere fact that a library station is located in a school is not an indication that pupils are engaging in extensive reading. The necessity and the importance of a constructive attack on the program in recreational reading are emphasized. ..."—*P. A. Witty* (Kansas).

918. Davis, H. H. Corporal punishment and suspension. *School & Soc.*, 1928, 28, 630.—The incidence in the public schools of St. Louis of cases of corporal punishment and of suspension was determined for every fourth year from 1881 to 1924. Whereas in 1881 there were 10 suspensions and 141.1 cases of corporal punishment annually among each 1,000 pupils, in 1924 there were 2 of the former and 1.7 of the latter. The author's data show that in the 42 years considered corporal punishment has tended to be administered most frequently in the first quarter of the teaching year and to become less frequent as the year progressed.—*H. L. Koch* (Texas).

919. Döring, W. O. Psychologie der Schulklasse. Eine empirische Untersuchung. (Psychology of school classes. An empirical study.) Vol. 4 of *Handbooks of Newer Educational Science*. Osterwieck a. Harz: Zickfeldt, 1927. Pp. 219. M. 5.60.—Döring studies the phenomena which are genuinely common in an indistinct whole.—*A. Römer* (Leipzig).

920. Douglass, H. R. An experimental investigation of the relative effectiveness of two plans of supervised study. *J. Educ. Res.*, 1928, 18, 239-245.—A comparison of methods to determine whether it is better to have recitation before study or the study period before recitation. Retention was tested after 23½ hours. The subjects were students in the University of Oregon High School. Various materials were tested: history, civics, English, mathematics and science. The results show that neither method is superior for all kinds of material. The study-recitation sequence is superior for classes in history, social studies and literature and the recitation-study sequence is superior for mathematics and general science.—*S. W. Fernberger* (Pennsylvania).

921. Fenton, N. Training in the public presentation of a school exercise: a study in school morale.

J. Appl. Psychol., 1928, 12, 417-426.—A questionnaire was given to the students and faculty of a teachers' college at the beginning of the practice for the public presentation of a pageant. The questionnaire asked for information in regard to class time lost, courses interfered with, amount of personal time taken, the effect of the pageant on school morale, the educational and cultural values of the pageant, the light thrown on the problem of organization and direction of such school exercises. The average loss of class time by students was 8.7 hours. The courses interfered with were chiefly those which had something to contribute to the pageant. The students gave their time after school, evenings, or week ends. During the pageant practice school morale was low; after it was over, it was high. The cultural and educational values listed varied from dancing and musical training to training in observing the organization features of such a program. Recommendations for future organization indicated that (1) "the process of preparation should be accorded at least as much weight as the resulting performance," (2) the students should be given an opportunity to take part in the organizing end of the production, the faculty to correlate the work of the pageant with the curriculum, (3) work on the pageant should not be compulsory on the part of either students or faculty. A suggested plan for the possible organization of a pageant is given in diagram form. The questionnaire is given in full.—M. Goodrie (Clark).

922. Fritz, R. A. An evaluation of two special purposes of junior high school: economy of time and bridging the gap. *Univ. of Iowa Stud.: Stud. in Educ.*, 1927, 4, No. 5. Pp. 80.—Among the supposed advantages resulting from junior high school are economy of time through improvement in pupil progress and bridging the gap between the grades and senior high school. This study endeavors to measure the degree to which junior high schools accomplish these two special purposes. Progress rates were studied in the schools of six cities with populations of 40,000 to 200,000. The 6-3-3 type schools were found to be more economical of the pupils' time in grades 7, 8 and 9 than the 8-4 schools. The gap between grades 8A and 9B was much smaller in 6-3-3 schools than in 8-4 schools; but a large gap was found in 6-3-3 schools between grades 9A and 10B. It appears that the 6-3-3 type of organization does not actually bridge the gap, but that it does postpone it one year.—B. Wellman (Iowa).

923. Garrison, K. C. Intelligence test scores and choice of major field. *School & Soc.*, 1928, 28, 630-632.—331 prospective teachers were classified according to the subjects they were planning to teach, and the average Otis Test score for the students in each of these subject groups was computed. Among the undergraduates the order of merit of the various groups according to performance on the Otis Test was as follows: modern and classical languages; science and mathematics; physical education; social science; English and library science; fine arts, dramatics, and music; primary and elementary education; agriculture, home economics and industrial arts; and lastly public-health nursing. The median

score for the embryo teachers was slightly above the college norm. The graduate students in the group rated higher than did the undergraduates.—H. L. Koch (Texas).

924. Goddard, H. H. School training of gifted children. Yonkers-on-Hudson: World Book, 1928. Pp. x+226. \$2.00.—The author describes in some detail the special classes for gifted children in Cleveland, upon which, at the date of writing, he had made something over five years' observations. The procedure used in these classes is without discriminable exception that usually known as "progressive," "creative" or "newer" education. In Part I the history and philosophy of the movement are presented somewhat popularly, and in Part II attention is given to a description of the group and the work of the children in various fields; numerous samples and programs are presented. A chapter on the adjustment of special-class children in high school indicates that unless the children are met with suspicious attitudes or other obstacles they are likely to distinguish themselves in most respects.—R. R. Willoughby (Clark).

925. Henmon, V. A. C. Measurement and experimentation in educational methods. *J. Educ. Res.*, 1928, 18, 185-194.—In education it is a proper ideal to ignore tradition and trust only to the results of experimental evidence. The author is troubled by the results which have thus far been obtained, inasmuch as the results of different experiments are contradictory and often ambiguous even on some of the major problems in education. The author believes that the solution of this difficulty is the creation of research institutes which may attack major problems intensively, extensively and with exactly controlled methods.—S. W. Fernberger (Pennsylvania).

926. Hylla, E. Die pädagogische Forschung in den Vereinigten Staaten. (Educational research in the United States.) *Päd. Zentbl.*, 1928, 8, 601-624.—America is foremost in educational research and has made noteworthy advances in the study of aims of education, history of education, comparative education, educational sociology, school surveying, and various types of educational research and statistics. Although much of this work is mere statistical jugglery and fruitless, much real progress has been made in the past twenty years. It is time that Germany faced many of the same problems more seriously.—M. Meenes (Lehigh).

927. Jorgensen, A. N. Iowa silent reading examinations. *Univ. of Iowa Stud.: Stud. in Educ.*, 1927, 4, No. 3. Pp. 76.—The Iowa silent reading examinations, measuring a number of different phases of silent reading, were prepared to meet some of the limitations of existing silent reading tests. The aim of the examinations was primarily to provide a means of making a survey of an analytical type to aid in revealing conditions which should be improved in order to insure on the part of the pupil the proper training for the efficient use of books for study. Twelve hundred children were tested.—B. Wellman (Iowa).

928. Kaulfers, W. Intelligence of one thousand students of foreign languages. *School & Soc.*, 1928, 28, 597-599.—In order to test the theory that the

high incidence of failure in the high schools among the students of foreign languages is due to poor mental equipment, the author gave intelligence tests to children in the Spanish classes in 18 junior and senior high schools in California. The mean IQ of 568 girls was 107.6; of 434 boys, 108.9. The opinion is expressed that the prevailing methods of teaching Spanish are not adequately adjusted to the abilities and interests of high school pupils, and that the relatively high IQ's of the students of foreign languages proves that only the fittest have been able to survive.—*H. L. Koch* (Texas).

929. Kaulfers, W. The prognostic value of general language. *School & Soc.*, 1928, 28, 662-664.—The author found a correlation of .44 between the grades made by 186 junior-high-school students in general language and their semester grades in a specific language, such as Spanish, French, or Latin. It is concluded that teachers' marks in general language predict less accuracy achievement in foreign language than do simple grades in English. Even intelligence quotients equal general language grades in predictive value. Girls do better in the regular language courses than in exploratory course; boys, on the other hand, tend to do worse.—*H. L. Koch* (Texas).

930. Kitson, H. D. Measuring the interest of teachers in their work. *Teach. Coll. Rec.*, 1928, 30, 28-33.—A group composed of 67 elementary teachers, 247 women high school teachers, and 95 men high school teachers recorded their interest in teaching on a ten-step scale of 0 to 100. The time of service in teaching was also obtained. The scale was found to differentiate among teachers, the scale values recorded ranging from -50 to +100, with a median at 90. The distribution was sharply skewed, 57% of the measures being found at 90 and 100. Length of service is positively associated with interest.—*H. H. Remmers* (Purdue).

931. Langevin, P. L'École unique. (The unique school.) *C. r. de la 51ème session de l'association française pour l'avancement des sciences*. Constantine, 1927, 597-599.—Summary of a conference wherein was clearly set forth how the unique school of four grades should function.—*Math. H. Piéron* (Sorbonne).

932. Lutes, O. S., & Samuelson, A. A method for rating the drill provisions in arithmetic textbooks. *Univ. of Iowa Monog.: Monog. in Educ.*, 1926, First series, No. 3. Pp. 148.—The study attempts (1) to present the analyses of the drill provisions of six well-known arithmetic texts, (2) to propose a system of tables to use in analyzing the drill provisions of arithmetic texts by which any text may be analyzed, and (3) to propose a system of interpreting or rating the drill aspects of texts.—*B. Wellman* (Iowa).

933. Manry, J. C. World citizenship. *Univ. of Iowa Stud.: Stud. in Character*, 1927, 1, No. 1. Pp. 67.—An objective test of information and judgment on international affairs was constructed and given to college students of fourteen colleges and universities in the East, Middle West and West. Data in regard to orientation courses were collected in order to determine the factors favoring the attainment of the objective of world citizenship. The re-

sults indicated that the information and judgment factors of the test had been distinguished and that it was not simply a test of intelligence. Colleges and universities were found to be functioning in the direction of world citizenship, but there were wide variations between different institutions. Introductory or orientation courses and travel were the most important factors influencing ability to score well on the test. The bearing of these results on college administration is briefly treated.—*B. Wellman* (Iowa).

934. Masters, H. V. A study of spelling errors: a critical analysis of spelling errors occurring in words commonly used in writing and frequently misspelled. *Univ. of Iowa Stud.: Stud. in Educ.*, 1927, 4, No. 4. Pp. 80.—Eighth grade pupils, high school seniors and college seniors in 41 public school systems and 11 colleges in Iowa were asked to spell the 268 most difficult words occurring in the 5,000 words most frequently used in writing. The various forms of misspelling with their frequencies were recorded. The rank order of the words, when arranged in order of decreasing accuracy, changed more between the eighth grade and high school senior levels than between the high school senior and college senior levels. The most frequent forms of misspelling at one grade level tended to be the most frequent forms at the other grade levels. The most frequent types of errors at the eighth grade level were confusion and substitution of letters, omission of letters and doubling.—*B. Wellman* (Iowa).

935. Morris, L., Sackett, E. B., & Brogan, W. An annotated bibliography of researches in educational publicity. *Teach. Coll. Rec.*, 1928, 29, 40-45.—A list of 27 titles is given.—*H. H. Remmers* (Purdue).

936. Nelson, M. J. How much time is required in the fall for pupils of the elementary school to reach again the spring level of achievement? *J. Educ. Res.*, 1928, 18, 305-308.—Tests made with the Courtis Standard Research Arithmetic Tests and the Morrison-McCall Spelling Scale were made on 133 pupils in Grades 7B, 5A and 3A. The results show that six weeks of drill in the case of spelling and one month in the case of arithmetic is necessary at the opening of school to bring the pupils to the achievement of the previous spring.—*S. W. Fernberger* (Pennsylvania).

937. Orleans, J. S., & Thompson, H. G. The textbook and achievement in Latin. *School & Soc.*, 1928, 28, 549-550.—*H. L. Koch* (Texas).

938. Oswald, O. J. First year German objective tests. (Based on Vos's *Essentials of German*.) New York: Holt, 1928. Pp. 28. \$0.50.—A pad of objective tests, topically arranged, designed for use in first or second year German classes. Vocabulary test sheets are included as well as the grammar tests.—*L. M. Harden* (Clark).

939. Rion, E. La préparation des membres de l'école primaire. (Preparation for elementary school teachers.) *C. r. de la 51ème session de l'association française pour l'avancement des sciences*. Constantine, 1927, 591-593.—The author insists that the methods of the new pedagogy should be better adapted to the information which is furnished by

child psychology. He believes that each year the instructors should serve a term in the model classes, where they could be kept constantly advised of the new data acquired by pedagogy.—*Math. H. Piéron* (Sorbonne).

940. Rugg, H., & Shumaker, A. *The child-centered school*. Yonkers: World Book, 1928. Pp. xiv + 359. \$2.40.—The authors are firmly convinced of the superiority of the new education to the old, but believe that the time is ripe for sympathetic criticism. They present the latter in Chapters VII-X, around which the volume is written: the work should be planned in advance in terms of desirable objectives, and the various contents which might lead to these objectives thoroughly tested in order to insure maximum efficiency in the use of the child's time and interest; more attention should be given to that phase of experience mediated by ideas and thinking; there should be more provision for repetition. All these improvements the authors believe may be effected without impairing the freedom or the child-centered quality which is the major contribution of the active school. The first six chapters are given to a thorough exposition of the philosophy and history of the newer education; Chapters XI-XVIII are devoted to the techniques of expression; Chapter XIX is a consideration of the psychology of the creative act, Chapter XX deals with social aspects, Chapter XXI with physical setting, and Chapter XXII is a summary chapter. Much stress is laid throughout upon actual procedures of actual schools and teachers. There is a 28-page classified and annotated selected bibliography.—*R. R. Willoughby* (Clark).

941. Russell, R. D. *A comparison of two methods of learning*. *J. Educ. Res.*, 1928, 18, 235-238.—Comparison of the methods of having children in the school read about a material to be learned, as against having the material read to them. Results from 690 children in the 5th, 7th and 9th grades, presumably in Idaho schools. The results show that for the 5th grade it is better to read to the children; in the 7th grade the two methods give about equal results, and for the 9th grade the advantage is slightly in favor of letting the children read for themselves.—*S. W. Fernberger* (Pennsylvania).

942. Searles, H. L. *The study of religion in state universities*. *Univ. of Iowa Stud.: Stud in Character*, 1927, 1, No. 3. Pp. 91.—The gradual emergence of a scientific attitude toward religion is traced in the history of philosophy, and the significance for the university curriculum of scientific attitude and method in the study of religion is discussed. "Although it is recognized that a great victory was gained for both religion and education when public education was freed from sectarian control, yet the process has resulted in a certain poverty of ideal and motive in our educational system." A suggested basis for a reunion is that of a division of labor between the state university and the churches. "The university shall carry on that aspect of the study of religion which involves research investigation in those fields where there is little difference of opinion. The church will carry on work of the same high grade along those lines in which it is felt that she

can make a particularly effective contribution." In the appendices of the study are presented a survey of courses in religion in state universities of the United States; the opinions of teachers, heads of departments and presidents of state universities on the study of religion in state universities; state constitutional, legislative and supreme court provisions relating to sectarian religious influence in the public schools and plans of organization and policies of schools of religion and Bible colleges at state universities.—*B. Wellman* (Iowa).

943. Seashore, C. E. *Elementary psychology: an outline of a course by the project method*. *Univ. of Iowa Stud.: Ser. on aims and progress of research*, 1928, First series, No. 153. Pp. 16.—A plan of a course in elementary psychology at the University of Iowa with the four leading objectives: (1) to keep each student busy at his natural level of successful achievement; (2) to introduce the student to scientific method in psychology through experiment; (3) to place the student in an active scholarly attitude of self-help and freedom; and (4) to acquaint the student with the best psychologists through effective utilization of books. The essential features of the plan involve elimination or reduction of lectures and quizzes; substitution of elementary experiments and supervised readings in a project room; assignment of the project work in large units; making the assignment fit the spread of individual differences in capacity for achievement; furnishing the project room with books and other materials needed for the project of the month; socialization of the group and a monthly test. A detailed outline of the content of the course is included.—*B. Wellman* (Iowa).

944. Seham, M. *Recognition of fatigue in the school child*. *Elem. School J.*, 1928, 29, 106-114.—The symptoms and the methods of recognizing fatigue in the school child are set forth in this article. 109 unselected children between the ages of 12½ and 13½ were studied. 59 were reported as abnormal; fifty were diagnosed normal. The two groups were compared and the following conclusions drawn: (1) abnormal children have poorer health habits than do normal ones, (2) the efficiency of abnormal children is less than that of normal children. Efficiency was estimated in three ways: (a) questionnaire devices, (b) teacher judgments, (c) mother rating.—*P. A. Witty* (Kansas).

945. Shannon, J. R. *Personal and social traits requisite for high grade teaching in secondary schools*. Terre Haute, Ind.: State Normal Press, 1928. Pp. 112. \$1.00.—Accepting the conviction of Bagley and Keith, of Boyce, Charters, *et al.*, that the success of teachers depends to a marked degree on the possession of certain fundamental personal and social characteristics, Shannon presents in the present study the results of his own research into the matter of judging teacher personality. Having first constructed a list of 73 non-repetitive personal and social traits, using as a basis those qualities and characteristics found on large numbers of recommendation blanks, rating forms, in the educational literature and in the thinking of students in estimating the traits of their own teachers, he personally interviewed 97 supervisors concerning the best

and worst high school teachers they had ever employed, requesting them to check those traits possessed by both types to a marked degree. The study was extended to include: (1) an investigation of the reactions of several hundred high school and university students concerning the striking traits in evidence in their own teachers; (2) an analysis of 72 rating plans and scales to discover what traits were deemed most significant by their devisers; (3) an analysis of 166 recommendation forms, blanks, etc., used by teacher-placement bureaus, agencies, etc.; (4) a comparative study of the research work of Moses, Buellesfield, Nanninga, and Huddleston upon the causes of teachers' failure; (5) an analysis of teacher traits found in state certification plans, tenure laws, contract forms, etc.; (6) a survey of available codes of professional ethics for teachers; (7) a study of the conspicuous traits of student-teachers as reported by 124 critic teachers in 24 teacher-training institutions; (8) an analysis of supervisory notes covering 1,400 observations; and (9) a canvass of massed opinions as to the relative importance of the 73 traits in the check-list. A digest of the previous studies of the problem from all these angles is presented, and the investigator concludes that 17 of the 73 traits stand out well above the others; "nearly all of these should be found present in successful teachers and about half should be found lacking in unsuccessful teachers." The 17 traits include 6 "primary" ones "that have most to do in influencing success in teaching in secondary schools" (sympathy, judgment, self-control, enthusiasm, stimulative power, and earnestness); and which "will take care of 80 per cent of all the attention that needs to be given to traits of high school teachers." The remaining 11 in the list of 17 are designated as "secondary" traits "of importance"; these include: affability, industriousness, voice, adaptability, forcefulness, cooperativeness, attention to own use of English, accuracy, alertness, integrity, and reliableness. An annotated bibliography of upwards of 150 titles bearing upon the general theme of teacher-rating is included in the appendix.—*L. A. Averill* (Worcester Normal).

946. Slaght, W. E. **Untruthfulness in children: its conditioning factors and its setting in child nature.** *Univ. of Iowa Stud.: Stud. in Character*, 1928, 1, No. 4. Pp. 79.—Two groups of 70 children each, one group of whom were consistently truthful and the other group consistently untruthful, were selected on the basis of objective tests. The two groups were examined with an extensive battery of tests to determine the traits associated with truthfulness and untruthfulness. The battery included tests of intelligence, memory for abstract and concrete words, memory based on visual perception, suggestibility, imagination, overstatement, range of information, sensori-motor responses, judgment of perceptual relations, persistence, moral judgments and association. This series was supplemented by a self-rating scale of likes and dislikes, parental reports and introspective reports of the children. The truthful children showed greater moral comprehension and a wider range of information, although they were not more intelligent. The untruthful chil-

dren were inclined to overstate, were more suggestible and were quicker in reaction. The truthful children gave evidence of more stable and more centrally coordinated personality. There was a close relationship between unfavorable home surroundings and untruthfulness.—*B. Wellman* (Iowa).

947. Snyder, A. **The value of certain measurements in the training of teachers experimentally determined.** *Johns Hopkins Univ. Stud. Educ.*, No. 9, 1928. Pp. x + 146. \$2.50.—The problem attacked is that of the value of tests and measurements as devices for teacher training. Two groups of normal school seniors taught for equal lengths of time grades 3, 4, and 5, the first group basing its teaching on the results of testing, the second using non-test-determined techniques. The results of these two different teaching methods were measured in terms of (1) the progress of the pupils, (2) "the worth of the instruction as observable in the classroom." The experiment was very carefully planned and the plans faithfully executed. The experimental and control groups of children were equated in respect to several variables. The two groups of student teachers were also so equated as far as possible. All tests used were standardized. Measurement was made and account was taken of many variables that may have affected the results of the experiment. The results were on the whole positive; that is, pupils taught by the "test-teach" method made, on the whole, greater average gains in their subjects, as shown by standard tests, than pupils taught by the conventional methods. The results varied according to the subject, the greatest gains being in arithmetic fundamentals. The author concludes that there are some values in teaching teachers to use the results of general and diagnostic tests in their instruction of children, and that the values are probably greater in some subjects than in others.—*M. May* (Yale).

948. Spence, R. B. **Lecture and class discussion in teaching educational psychology.** *J. Educ. Psychol.*, 1928, 19, 454-462.—The lecture and class discussion methods of presenting educational psychology are experimentally compared with reference to their influence upon scores on a test designed to measure ability to apply knowledge, as well as the knowledge itself. Sixty students from each of two larger sections are studied. In one section, the lecture method was used during the first semester and the discussion method during the second. The other section reversed this order. In both cases the section taught by the lecture method excelled by statistically valid amounts. The author concludes that "the major value of the experiment is to show the high degree of specificity of conditions in connection with college teaching and to point out the lack of information at present available." Some of the important factors are listed. The real problem is not "Is Method A better than Method B or Method C?", but rather "Under what conditions does each method produce the most effective results?"—*J. A. McGeoch* (Arkansas).

949. Tinker, M. A., & Paterson, D. G. **Influence of type form on speed of reading.** *J. Appl. Psychol.*, 1928, 12, 359-368.—Forms A and B of the Chap-

man-Cook Speed of Reading Test were given in 3 type forms—all capitals, roman lower case, italics—to 640 subjects. Comparisons were made between the speed of reading the all capitals vs. the lower case text and the italics vs. the lower case text. The ABBA method of sequence was used for each form of the text and each style of type. A difference of 13.4% was shown in favor of lower case vs. capitals; 2.8% in favor of lower case vs. italics.—*M. Goodrie (Clark)*.

950. **Uhrbrock, R. S.** Reciprocal ratings: a comparison of the judgments of a teacher and pupils in estimating ability in United States geography. *J. Educ. Psychol.*, 1928, 19, 572-579.—The problem was: Can pupils estimate the relative standing of their classmates in United States geography with greater accuracy than their teacher is able to show? Pupils' and teacher's estimates were correlated with a criterion composed of seven geography tests. The estimate of the teacher was more accurate than the pooled estimates of the class of 44 VIIIB girls, who were well acquainted with each other. A table is given showing the intercorrelations for the seven geography tests and the correlation between each test and N.I.T. scores. Evidence is also given regarding tendencies to over- and under-estimation.—*J. A. McGeoch (Arkansas)*.

951. [Various.] **Building character.** Chicago: Univ. of Chicago Press, 1928. Pp. vi + 345. \$1.00, \$2.00.—(Proceedings of the Midwest Conference on Character Development.) There are five addresses which touch on the scientific attitude toward the subject. M. A. May states the contributions which have been made to character education from various sciences. E. D. Starbuck discusses the stages through which civilization has passed in its attitude toward education. F. J. Cooke describes, incidentally in her introduction, the Christmas Toy Shop in the Francis W. Parker School. H. C. Morrison gives a detailed definition of a wholesome school. J. Jastrow concerns himself with the difficult business of growing up, which involves controlling the "susceptibility to unruly emotions." There are six addresses on emotional health, one of which is the introduction (J. J. B. Morgan) and one which is the chairman's address (M. Mason). F. Mateer defines emotional health and discusses various conditions, such as lime and thyroid deficiency, which seem to contribute to faulty emotional adjustment. B. Glueck discusses the significance of parental attitudes for emotional health. W. Healy emphasizes the importance of environmental conflict in adjustment. G. A. Dorsey gives positive and negative suggestions for making and keeping a child emotionally adjusted. H. Rugg elaborates upon the point that "character will be produced only when children themselves produce it from the inside." Topics dealing with standards of character are discussed by M. C. Otto, who speaks of the difference in ideals of the present from those of the past, and W. Kilpatrick, who speaks of the importance of "constructive discipline." Round table discussions: E. M. Getz shows how creative expression may be obtained through music; D. C. Watson, through art. J. W. F. Davies and L. B. Garrett speak of the use

of leisure time in character development. J. Ad-dams and E. Faris discuss social attitudes. The religious side of character training is taken up by S. B. Freehof, who is concerned with adolescent religious phenomena, H. S. Dimock, who makes a plea for teaching children the history of religions, and E. A. Haydon, who feels that attitudes are more important than ideals in religious teaching. P. D. Smith, in a discussion on unified education, tells how emotional health is furthered in the Country Day School in Winnetka.—*M. Goodrie (Clark)*.

952. **Wickman, E. K.** Children's behavior and teachers' attitudes. New York: Commonwealth Fund, 1928. Pp. 247. \$2.00.—The customary attitudes of teachers in a Cleveland and in a Minneapolis school toward behavior problems in children were ascertained by means of careful questionnaire studies, and controlled by the application of the same procedures to several heterogeneous groups elsewhere. They were set against a norm composed of the professional judgments of 30 professional mental hygienists. The teachers consistently regard as serious those forms of behavior which constitute an attack on established order or a frustration of the immediate purposes of teaching; the withdrawing or submissive forms of behavior are, *per contra*, rated consistently low in importance. These judgments are practically reversed by the mental hygienists. The social impositions upon individuals and the attack and withdrawal patterns of meeting them are analyzed in some detail, and the attitudes of the teachers brought under the same concepts by being interpreted as counter-attack and indulgence (in the case of submission). The point is stressed that these reactions, themselves as emotionally determined as those of the child, simply entrench the latter more firmly. A program for teacher reeducation is suggested, giving emphasis to the analysis and evaluation by student teachers of the social and experiential background of their pupils.—*R. R. Wil-loughby (Clark)*.

953. **Woodring, M. N., & Flemming, C. W.** Diagnosis as a basis for the direction of study. *Teach. Coll. Rec.*, 1928, 30, 46-64.—An outline *Analysis of Study Activities* is followed by a listing of factors conditioning study. Various instruments for measuring these factors, such as ability to learn, ability in reading, achievement in specific subjects, health, home conditions, daily activity schedules, are listed together with appropriate record blanks. The study is to be continued in the November issue of *Teachers College Record*.—*H. H. Remmers (Purdue)*.

954. **Woodring, M. N., & Flemming, C. W.** Diagnosis as a basis for the direction of study. *Teach. Coll. Rec.*, 1928, 30, 134-147.—The following topics are outlined and discussed in terms of four pupils chosen for diagnostic study: conditions for study at school, amount and kind of work, methods of work, the effect of associates on study, attitude of pupil toward school work, teacher's personality and interest, assignments, ability to direct study, and remedial procedures.—*H. H. Remmers (Purdue)*.

955. **Ziegler, C. W.** School attendance as a factor in school progress. *Teach. Coll. Contrib. Educ.*, 1928, No. 297. Pp. vi + 63.—School attendance,

school marks, school progress, ability of pupils, economic status of parents, home environment, and distance from school were obtained for 307 junior high school pupils in grade 7B in a Pennsylvania city of about 150,000 inhabitants. Partial correlations of these were found to be:

Attendance and school marks .....	.23
" " " progress .....	.27
" " ability .....	.13
" " environment .....	.03
" " economic status .....	.11
" " distance .....	.12

These findings are further corroborated by a study of differences of groups formed on the basis of varying amounts of the variables in question. Partial correlations are also given for attendance *vs.* specific school subjects. Practical arts and geography gave the lowest *r*'s, $-.09$, while history gave the highest, $+.37$. Girls were found to be generally superior to boys in school work, with the exception of drawing, geography, and history. Foreign parentage was associated with poorer attendance, economic status, environment, ability, and school progress. The difference in school marks, however, was slight. The correlation of age entrance with "age-delay" (retardation) for 257 pupils varied for six schools from $.11$ to $.87$, with the median *r* at $.68$. School attendance has improved noticeably since 1920.—*H. H. Remmers* (Purdue).

[See also abstracts 565, 583, 598, 728, 773, 817, 889, 965, 973, 976, 979, 984, 985.]

BIOMETRY AND STATISTICS

956. **Burnside, W.** *Theory of probability*. New York: Macmillan, 1928. Pp. xxx+106. \$3.50.—Direct and indirect methods of calculating probabilities are given, with ample illustrations from coin spinning, card drawing, etc. There are also chapters on probability of causes, probabilities connected with geometrical questions, theory of errors, and Gauss's law of errors. The treatment is mathematical throughout. A brief memoir of the author by A. R. Forsyth is included.—*M. N. Crook* (Clark).

957. **Farnsworth, P. R.** *The Spearman-Brown prophecy formula and the Seashore tests*. *J. Educ. Psychol.*, 1928, 19, 586-588.—"On a study of the Seashore battery of sound tests, Lanier had previously found that the Spearman-Brown prophecy formula failed to function when checked against retests. In this study two forms of each test were made from a single rendition. The formula was found to predict with considerable accuracy in most instances."—*J. A. McGeoch* (Arkansas).

958. **Fisher, R. A.** *Statistical methods for research workers*. New York: Stechert, 1928. Pp. 269. \$5.00.—*W. S. Hunter* (Clark).

959. **Friedrich, H.** *Das Verhältnis der 3 Fechner'schen Hauptwerte bei psychologischen Kollektivgegenständen aus Reaktionsversuchen*. (The interrelations of the three Fechnerian principal values for statistical populations occurring in reaction-experiments.) *Arch. f. d. ges. Psychol.*, 1928, 61, 355-416.—A study of the theoretical and empirical

relationships between the mean, the median and the mode. The first 20 pages are devoted to a review of the ideas of Quetelet, Fechner, Pearson and Doodson. According to Pearson's empirical finding and Doodson's mathematical theory, asymmetrical distributions should obey the rule: $(A - D) \div (A - C) = 3$, where *A* is the mean, *C* the median and *D* the mode. According to Fechner's theory, this ratio should equal 4.67 for slightly asymmetrical distributions, and 6.49 when the asymmetry is infinitely great. Friedrich analyzes a large mass of data on reaction-times in order to determine the empirical relations between *A*, *C* and *D*. These data were obtained under carefully controlled conditions by Kiesow and his co-workers, and by Günther. The data are not homogenous, but from among them it is possible to obtain a considerable number of large groups of observations homogeneous *inter se*. In these groups the asymmetry (measured by $A - C$ and $A - D$) is small and oscillates between positive and negative values. In the first place, the author undertook to determine whether the differences between the average values of *A*, *C* and *D* were significant. The means, medians and modes of the individual groups were formed into three new populations, and these populations were found to obey Pearson's criterion for normality. The reliabilities of the differences between their averages could therefore be calculated by the ordinary formula, after the appropriate correlation-coefficients had been determined. When this was done the differences were found to be without significance. A proper insight into the relations between *A*, *C* and *D*, however, cannot be obtained by a mere consideration of these averages; one must take into account the three entire distributions. One then finds that $A - D$ is positively correlated ($r = 0.52$ to 0.78) with $A - C$. Also, the average ratio between $A - D$ and $A - C$ lies very near the Pearsonian value 3. Since, however, the difference $A - C$ is itself very small for large populations, the question of the preferability of mean or median is here shown to be pointless, at least so far as reaction experiments are concerned. The median is to be recommended on grounds of convenience. Furthermore, it has a reliability equal to or even greater than that of the mean, and the same is true of the mode.—*D. McL. Purdy* (California).

960. **Guilford, J. P.** *The method of paired comparisons as a psychometric method*. *Psychol. Rev.*, 1928, 35, 494-506.—This article summarizes Thurstone's statistical procedure for computing scale values of stimuli presented by the method of paired comparisons and the statistical theory which is involved. It is demonstrated from four sets of data that Thurstone's scale values correlate almost perfectly with the total number of times each stimulus is chosen when paired with all the others. Thus, the total number of choices or the average per cent of the choices for a stimulus gives scale values which are empirically justified, provided that there are no very extreme proportions. A second procedure is suggested for getting scale values in sigma units from assumed mean of all the stimulus values. This method is justified by reference to the phi-

gamma hypothesis. Assuming that the average affective value of all the stimuli is the standard, we can determine from our data the proportion of choices for each stimulus as compared with this standard, and we can find the corresponding scale values by way of the phi-gamma function. This gives scale values on an assumed "objective" continuum, whereas Thurstone's method gives scale values which lie on a "psychological" continuum.—*H. Helson* (Bryn Mawr).

961. **Thurstone, L. L.** Scale construction with weighted observations. *J. Educ. Psychol.*, 1928, 19, 441-453.—The purpose is to develop further a previously published scaling technique so that "the observed proportion of correct answers, or the observed proportion of each age group that exceeds a given raw score, may be weighted in accordance with its probable error." Fundamental formulae are developed for this absolute scaling with weighted observations. Thurstone's original observation equation is rewritten in a form more useful for purposes of calculation. Formulae are given for the calculation of (1) the standard deviation of one age or grade group when that of the other is known or assumed; (2) the mean test ability of one group when that of the other is available; (3) the ratio of the weighted dispersions needed in computing (1); and (4) the approximate weight for each observation equation. A facilitating table for calculating (4) is given. This procedure is applied to Woody's arithmetic test data as an example, and it is shown that absolute variability increases strikingly through the grades. This contradicts Woody's assumption that dispersion is a constant in all grades.—*J. A. McGeoch* (Arkansas).

[See also abstracts 963, 971.]

MENTAL TESTS

962. **Biegel, R. A.** Beitrag zur Prüfung des Kombinationsvermögens. (Contribution to the testing of the capacity for combination.) *Meded. u. h. Psychol. Lab. d. Rijksuniv. t. Utrecht*, 1928, 4, IV, 1-9.—Results of giving four of Roels's combination tests to 700 subjects ranging 11 to 17 years of age. In these tests it is required to put together five pieces so as to make a circle (triangle, rectangle, or square). Results are given in terms of per cent solving each test and time required for each of the seven age-groups. The triangle test requires a higher order of ability than the others.—*F. A. Pattie* (Harvard).

963. **Bliss, E. F., Jr.** Theories underlying the statistical determination of credit to be allotted item responses. *J. Educ. Psychol.*, 1928, 19, 584-585.—A discussion of procedures for arriving at the "correctness" of test items.—*J. A. McGeoch* (Arkansas).

964. **Bonnis, L.** Le développement de l'intelligence chez les arriérés. (The development of intelligence in backward children.) *Hygiène ment.*, 1928, 23, 197-202.—The author tries to find certain rules for the prognosis of backward states, rules which she thinks are valuable only for conditions where she has had to observe her subjects in numbers smaller than she wished. She established curves which de-

termine six zones: normal intelligence, mental backwardness, slight mental weakness, extreme mental weakness, slight imbecility, and extreme imbecility. After we have been given the mental age of a subject as compared with his physical age, these curves permit us to register easily the relative position of a child, and, by following the curve, to foresee the future of a backward child. The author says that this prognosis should be supported by other factors: the organic factor, character, and training. It is especially training, well conceived, which forms the basis of conduct to be followed in these states of mental backwardness.—*Math. H. Piéron* (Sorbonne).

965. **Brigham, C. C.** Third annual report of the chairman of the commission on scholastic aptitude tests. New York: College Entrance Examination Board, 1928. Pp. 51.—The Scholastic Aptitude Test was taken by 8,318 candidates; it was given in 342 examination centers and was corrected by a number of paid clerks. The report shows a great improvement as to details in administering and scoring the test this year over the last two years. Girls exceed boys in 4 out of 7 sub-tests and seem to have a higher average score with a smaller σ . Because of the incompatibility of the sub-tests in the series of 1926 and 1927 all arithmetic problems and number progressions were left out, the test as standing being now more valid for predicting success in a "liberal arts" college; this was determined by the method of tetrad differences. The commission, however, is trying to build a test around the other group of sub-tests which will have a validity which may be tested in an engineering school. There is a long discussion, both from the theoretical and from the practical sides, of what may be termed internal criteria of test construction, i.e., self-consistency and item validity. The validity of the test as measured by its correlation with academic grades receives much less attention, because of the unreliability of marks when used as a criterion, the difference in the grading system from one course to another, and the lack of knowledge concerning the selective factors governing admission to college.—*D. E. Johannsen* (Clark).

966. **Broom, M. E.** A note on the validity of a test of social intelligence. *J. Appl. Psychol.*, 1928, 12, 426-429.—The Moss Social Intelligence Test and Thorndike Intelligence Examination were given to 258 students in the San Diego State Teachers' College. The coefficient of correlation for the two tests was 0.560 ± 0.029 ; after correction for attenuation, 0.644. The coefficient of alienation was 0.828.—*M. Goodrie* (Clark).

967. **Brown, F. J., & Sheldmadine, M.** A critical study in the objective measurement of character. *J. Educ. Res.*, 1928, 18, 290-296.—The criticism is made that paper and pencil tests of character do not measure the true character of an individual but only that individual's knowledge of right conduct. In order to test out this thesis a paper and pencil test was given to 124 high school students. The results gave a very high estimate of character. These were followed by two actual situations with the same students: during a test the teacher went out of the room but observed the students with a hand mirror, and during a daily drill the students retained the papers

when the correct answers were read in an effort to see how many would change the answers. In both cases approximately 40% of the students cheated, although 84% of this same group had placed honesty first in list of character traits. This was followed by an experiment with 186 pupils in a junior high school. Certain general conclusions with regard to cheating seem to indicate that the students' and the adult attitude toward cheating is that it is the "other person's affair."—*S. W. Fernberger* (Pennsylvania).

968. *Commings, W. D.* More about sex differences. *School & Soc.*, 1928, 28, 599-600.—Among about 600 school children of ages 9-14 and from grades 3-12 the girls at every age scored higher on the average on the McCall Multi-mental Scale than did the boys. Among about 200 fifth-graders the boys rated superior to the girls on the National Intelligence Test and on the arithmetic, nature-study, history, and literature sections of the Stanford Achievement Test. The girls excelled in reading, language-usage, and dictation. In the case of both the achievement and the intelligence test the scores of the boys showed the greater variability. One exception occurred, viz., in the performance of the 11-year group on the McCall Multi-mental Scale. The author thinks the greater variability of the boys can be accounted for in terms of the greater freedom of conduct they are traditionally allowed.—*H. L. Koch* (Texas).

969. *Curtis, F. D., & Woods, G. G.* A study of a modified form of the multiple-response test. *J. Educ. Res.*, 1928, 18, 211-219.—The modification consists in having the person tested underline the current response or to write it in a blank if the correct response is not present. Results are given from 206 pupils in the University of Michigan High School. The results indicate that this form of the test is more difficult than the usual multiple-response test. It is inferior to the conventional form in that it takes longer to score, but in other respects it is equally valid.—*S. W. Fernberger* (Pennsylvania).

970. *Dearborn, W. F., & Long, H. H.* On comparing IQ's at different age levels on the same scale. *J. Educ. Res.*, 1928, 18, 265-274.—Comparisons of several scales of tests at different age levels have been made with one another. In the present study, the authors compare the IQ's at different age levels on the same scale. The Binet-Simon scale is employed. From a statistical examination of their results, the authors conclude: (1) "If the IQ derived empirically from the Binet tests is constant, then the relative ability of the child is not constant, but varies according to some known law with which the Binet tests happen to be in conformity." (2) "If the child's ability remains constant and the sigma deviation from the means is a measure of that constancy, then the empirical IQ's upon the Binet test are of necessity not constant." This article gives another approach to the problem of the constancy of the IQ.—*S. W. Fernberger* (Pennsylvania).

971. *Dodd, S. C.* The theory of factors. II. *Psychol. Rev.*, 1928, 35, 261-279.—A review of the original contributions to Spearman's theory of two factors, *g* and *s*, and to Thomson's sampling theory. A more exact terminology is introduced in order to reduce ambiguities; hierarchy is more precisely de-

fined by equiproportion. Points of agreement and disagreement between the two systems are brought out, as well as different psychological and physiological interpretations of them. Spearman's theory is extended from the particular case of equiproportion to the more general theory of factors underlying correlated variables.—*H. Helson* (Bryn Mawr).

972. *Dougherty, M. L.* What changes the IQ? *Elem. School J.*, 1928, 29, 114-122.—Two case studies involving change in IQ are reported. Both cases suggest the danger of discontinuing the Stanford-Binet test (when complete failure has been elicited in the tests for a given year) on the assumption that the child can perform no tasks in higher levels.—*P. A. Witty* (Kansas).

973. *Dwelshauvers, G.* Le sens du concret et l'intelligence globale (ou facteur G). . (The sense of the concrete and the intelligence as a whole, or factor G.) *Psychol. et vie; Rev. de psychol. appl.*, 1928, 2, 187-190.—The intelligence as a whole is a complex unity which is different from the sum of the particular aptitudes. Our actual teaching, which consists in making children absorb as much matter as possible, establishes a serious lack of balance in the intelligence as a whole, for the gift of concrete observation is thereby sacrificed for the sake of verbal formulas which are not connected with reality.—*Math. H. Piéron* (Sorbonne).

974. *Edgerton, H. A., & Toops, H. A.* A table for predicting the validity and reliability coefficients of a test when lengthened. *J. Educ. Res.*, 1928, 18, 225-234.—Tables occupying four pages are given to answer the question: "Shall I increase the length of the present test in order to increase the validity and reliability of the predictions, or shall I try a different test, that is, one made up of a different content?" On the basis of the tables, the authors advise the adoption of the following arbitrary rule: "If the addition of one minute of test time will not add .005 to the reliability coefficient or .002 to the validity coefficient, then it is not worth while to increase the length of the present test further, and one should search instead for different test content."—*S. W. Fernberger* (Pennsylvania).

975. *Henning, H.* Experimentelle Charakterprüfungen. (Experimental character tests.) *Psychol. u. Med.*, 1928, 3, 19-28.—The ultimate goal of these experiments is to work out a "character age scale," analogous to the mental age scale. The lack of scientific knowledge about the development of character is responsible for many failures of education and penology. The first step is to work out an experimental method that gives valid results. The traditional technique of experimental psychology, though successful with problems of sensation, perception, and thought, has failed with problems of character, because investigations made upon isolated observers fail to evoke real expressions of character. Character is concerned with the relations of a man, not to things and apparatus, but to other persons. Henning experiments upon two or more persons at the same time, using 40 different arrangements of apparatus, under conditions that evoke various traits of character—initiative, laziness, conscientiousness, deceptiveness, etc. Sometimes the subjects work in

competition for prizes, sometimes in partnership; but always the presence of the other person is the chief stimulus for the expression of character.—*M. F. Martin* (West Springfield, Mass.).

976. **Jensen, M. B.** *Stanford educational aptitudes test.* Stanford University: Stanford Univ. Press, 1928.—This test was discussed in *Genet. Psychol. Monog.*, 1928, 3, No. 5 (see II: 3652). Its purpose is to differentiate between three aptitudes in the educational field, teaching, research, and administration. Three scales are included: (1) T-R, comparing the abilities of teaching and research, (2) A-R, comparing administrative and research abilities, and (3) T-A, comparing teaching and administrative abilities. The tests used are (1) Position Preference Ratings, (2) Discipline Case Problems, and (3) High School Activities Test. A score sheet is provided, also a brief manual of directions and a table for the interpretation of test scores. Validity figures are as follows: size of score with ratings by judges assisting in selection of criterion groups, about .85; size of test scores with sex, .00; size of test scores with age, —.13 (N=73); size of test scores with years of professional experience, —.04 (N=73); size of test scores with years of college and university training, .06 (N=73); size of score with self-ratings, .73 (N=100). Reliability coefficients, as obtained by the split-score method, are as follows:

	T-R	A-R	T-A
Position Preference Ratings ....	.86	.91	.90
Discipline Case Problems .....	.76	.84	.83
High School Activities .....	.77	.90	.91
Battery .....	.85	.94	.91

—*L. M. Harden* (Clark).

977. **Hermann, I.** *Qualitative Unterschiede des Denkens und die Intelligenz.* (Qualitative differences between thinking and intelligence.) *Psychol. u. Med.*, 1927, 2, 205-209.—Intelligence is directed by the reality principle; primitive thinking is directed by the pleasure principle. The transition from the pleasure principle to the reality principle takes place gradually, and there are many compromises. Magic, myth, ritualism, and formal logic are listed among the compromises, in which the pleasure principle plays an important rôle. Intelligence tests, claiming to measure intelligence quantitatively, overlook this qualitative distinction. The author regards intelligence tests as a necessary evil. He predicts that in the future tests will be so arranged as to bring primitive modes of thought into conflict with the more highly developed. Bibliography.—*M. F. Martin* (West Springfield, Mass.).

978. **Johnson, H. M.** *Some fallacies underlying the use of psychological "tests."* *Psychol. Rev.*, 1928, 35, 328-337.—Scientific method requires a distinction between equivocation (equivocation) and equivalence. For two objects to be equivocal they need only to bear the same name; for them to be equivalent (with respect to a particular function) they must be capable of interchange without altering any set of relations which are to be considered. If a variable is not capable of direct observation and measurement it has no existence other than the sort

one confers upon it by assumption. But such assumption does not necessarily fulfill the conditions of a genuine test in science. Problems requiring one to find the relation between two variables, one of which is not and cannot be given are pseudoproblems, too many of which are to be found in psychology. The clarity of a situation is always impaired if two non-equivalent things belonging to it are called by the same name, for by a process of training this equivalence may become extended; as when the naming of "test-performances" may lead to the use of one name for more than one performance.—*H. Helson* (Bryn Mawr).

979. **Ruch, G. M., & Charles, J. W.** *A comparison of five types of objective tests in elementary psychology.* *J. Appl. Psychol.*, 1928, 12, 398-404.—An examination of 100 questions based on the text of Woodworth's *Psychology* was given in five different forms: the recall or completion test, the five-response, the three-response, and the true-false. The reliability of each form of test was ascertained with uncorrected and corrected scores, as was also the reliability as determined by Brown's formula for tests of twice the length. The recall test did not show as high a reliability as the three- and five-response tests. The exact time for each student on each test was noted; the totals and averages for the groups in each test were obtained. Almost twice as many items per unit of time were answered by the true-false as by the recall.—*M. Goodrie* (Clark).

980. **Serejski-Maltzow, —.** *Prüfung der Musikalität nach der Testmethode.* (Examining musical ability by the test method.) *Psychotechn. Zsch.*, 1928, 3, 103-107.—Lists a number of methods of testing rhythm, absolute pitch, active and passive relative tone and analysis of compound notes. The tests further emphasize compound tones, melody, harmony, etc. The experimental results so far are favorable.—*F. Giese* (Stuttgart).

981. **Shulson, V., & Crawford, C. C.** *Experimental comparison of true-false and completion tests.* *J. Educ. Psychol.*, 1928, 19, 580-583.—Twenty true-false and twenty completion items were given to two classes. The questions were relevant to the subject-matter studied by one class and irrelevant to the subject-matter of the other. This second class was instructed to bluff, guess, and use general information. It was assumed that the test showing the most reliable difference in scores between the two classes would be the better test. It was found that, while the completion test lacks objectivity, it is as valid as the true-false test, and that the two should be used to supplement each other. Eight experiments led to this conclusion.—*J. A. McGeoch* (Arkansas).

982. **Sikorowska, Z., & Lipszycowa, Z.** *Analiza psychologiczna testu analogji.* (Psychological analysis of the analogy test.) *Polskie arch. psychol.*, 1927, 11, 17-45.—The first part of the article deals with an historical summary of analogy tests. The next part gives an account of new analogy tests devised by the authors on the basis of experimentation on children between the ages of 8 and 14. The investigators were interested particularly in a method of evaluating the responses and in finding out the

qualitative processes of analyzing.—*T. M. Abel* (Illinois).

983. **Slocombe, C. S. Truman L. Kelley measures mental traits.** *J. Educ. Psychol.*, 1928, 19, 497-501.—A discussion of Kelley's *Crossroads in the Mind of Man*. It is argued that some of Kelley's statistical technique is too intricate to apply to the crude test data now available. The indeterminable character of the results at present obtainable by the use of Kelley's formulae is emphasized. Criticisms are also offered regarding his interpretation of the common factor; and the problem of homogeneity and size of groups is discussed. It is concluded that "almost every page in the book presents some material for consideration, leading either to discussion or agreement." This is over and above the interesting statistical treatment.—*J. A. McGeoch* (Arkansas).

984. **Smith, N. B. Matching ability as a factor in first grade reading.** *J. Educ. Psychol.*, 1928, 19, 560-571.—The ability of pupils entering Grade I to match lower case letters correlates 0.87 with their reading test scores after 12 weeks. The letters *b*, *p*, *q*, and *d* are the most difficult to match for all of the levels of intelligence studied. There is some relationship between matching ability and intelligence. Difficulties in matching single letters do not transfer to the matching of words. Children match capitals more easily than lower case letters, but find it more difficult to match lower case letters with their corresponding capitals than lower case letters with lower case letters or capitals with capitals.—*J. A. McGeoch* (Arkansas).

985. **Dougherty, M. L. A comparative study of nine group tests of intelligence for primary grades.** *Johns Hopkins Univ. Stud. Educ.*, No. 10, 1928. Pp. vii + 112. \$1.75.—The nine tests compared are Cole-Vincent, Dearborn Group, Detroit First Grade, Haggerty Delta I, Otis Primary, Pintner-Cunningham Primary, Kingsbury Primary Group, Pressey Primary Classification, and Myers Mental Measure. Tests were given to 200 children from each of the following grades: kindergarten, first, second and third—a total of 800 children. One-half of the children in each grade were retested one year later; and 50 children from each grade were tested with the Stanford-Binet individual intelligence test. In the kindergarten three of the above group tests were given, in the first grade nine, in the second grade seven, and in the third grade five. Two basic criteria were used, (1) the Binet IQ, (2) the average IQ derived from the group tests taken. Other criteria were compounded from these. The results show that the tests rank differently in the various grades and according to the different criteria. According to criterion (2) above, Cole-Vincent ranks highest for kindergarten; for first grade, Dearborn and Cole-Vincent; for second grade, Pressey, Dearborn and Pintner-Cunningham; for third grade, Otis, Dearborn and Kingsbury. But according to criterion (1) the first ranks are as follows: kindergarten, Pintner-Cunningham; first grade, Detroit; second grade, Kingsbury; third grade, Haggerty.—*M. May* (Yale).

986. **Thomson, G. H. The mental age concept and the standardization of group tests.** *Psychol. Rev.*,

1928, 35, 398-413.—Author answers the question raised by Thurstone: which regression line, age on score or score on age, are we to use in standardizing a test? The conclusions reached are that there are not two regression lines in the ordinary sense and that Thurstone's logical worries on this particular point are groundless. In practice one can fairly readily find the average score of all people in a community of a given age, especially a school age, but not easily the average age of all people of a given score. The latter will be practically the same as the former if score is something without any restricting top limit, i.e., if the test or sequence of tests can be given from a young to an advanced age of childhood without serious jamming against zero or maximum possible score. The reason is that age and score, in such a test, are quantities which form a "correlation" surface of the peculiar type described in this paper. All correlations involving age as one variable are very peculiar in significance and are rather functions of age limits than of the closeness of association of age with the other variable, and this not merely in the way in which selection modifies all correlations, but in a different and more serious fashion. The correlation coefficient is indeed inadequate to measure such an association, even though "regression" be linear. Conclusions are based upon an exact mathematical treatment of the problem as well as upon logical considerations.—*H. Helson* (Bryn Mawr).

987. **Travis, L. E., & Hunter, T. A. The relation between "intelligence" and reflex conduction rate.** *J. Exper. Psychol.*, 1928, 11, 342-354.—Action currents from the quadriceps femoris muscle (patellar reflex) were amplified by a three stage resistance coupled unit and photographically recorded on standard film by means of a portable three-element Westinghouse oscillograph. The reflex times (in sigma) of 44 students, clerks, housemaids, farmhands, etc., and 43 Iowa freshman boys were correlated with the Otis test, higher examination A, and the Iowa University qualifying examination. The correlations run about .8. Reflex times ranged from 0.0114" to 0.0268". The authors maintain that "the more of the nervous system (especially in the higher centers) that is active within a given interval of time the more likely is there to be an adequate response to a complex situation." Also they claim that the feeble-minded "have such a slow conduction rate—that one reaction pattern becomes inactive by the time another becomes active, thus doing away with the very factor, relative simultaneity of activity, which makes possible the seeing of a relationship between ideational elements."—*S. Renshaw* (Ohio State).

988. **Woodrow, H. On the presuppositions of character testing.** *Psychol. Rev.*, 1928, 35, 338-350.—An answer to the criticisms of Lehman and Witty directed against various types of character testing. Author concedes certain limitations of the tests, redefines some concepts, and shows where careful, critical thinking may save one from falling into some of the pitfalls pointed out by the writers he is answering.—*H. Helson* (Bryn Mawr).

[See also abstracts 815, 817, 857, 868, 883, 923, 928, 957, 961.]

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